

# Green Ridge

## Updated Phase I Cultural Resources Investigation Cumberland County, Virginia



**DHR # 2019-0180**

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## ABSTRACT

A Phase I cultural resources survey was conducted on the ±1,178 acre Green Ridge property, located north of the village of Clinton, in Cumberland County, Virginia. The work was carried out between September 2018 and March 2021 by Browning & Associates of Hartfield, Virginia for Green Ridge Recycling and Disposal Facility, LLC of Midlothian, Virginia. The proposed landfill will include a waste disposal area that at maximum capacity (in several decades) will rise 230 to 330 feet above the current landscape.

The Phase I methodology included two separate GIS viewshed analyses conducted by Draper Aden Associates, a map-based architectural survey, evaluation of recorded historic structures from which the finished landfill will be visible, a walkover survey (Phase IA), shovel test excavations and metal detector surveys (Phase IB), and a cemetery identification survey.

Viewshed analysis was conducted to assess the visual impact to recorded architectural resources within five miles of the project area and for historic structures (identified on 1969 USGS quadrangles) within one mile of the project. The initial analysis indicated that the landfill will be visible from fifteen recorded architectural resources within five miles of the project area, five of which (Locust Grove-#024-0082, Melrose-#024-0085, Clinton Manor-#024-0240, Pine Grove Community Center-#024-5082, and the Brown Farm-#072-0104) have been determined eligible for- or are listed on- the National Register/Virginia Landmarks Register. However, subsequent analysis and a site visit suggest the landfill will not be visible from Locust Grove. Recommendations are provided below for the fifteen recorded historic standing structures originally thought to have visual impacts from the landfill.

### Historic Standing Structures with a View of the Green Ridge Facility at Maximum Capacity

DHR ID	Site Name	Site Type	NR/VLR Eligibility	Recommendation
024-0082	Locust Grove	Domestic Farmstead	Eligible	No Additional Work
024-0085	Melrose	Domestic Farmstead	Eligible	Mitigation of Adverse Effects
024-0118	Bruners Store	Commercial Building	Not Eligible	No Additional Work
024-0217	Dwelling	Dwelling	Not Eligible	No Additional Work
024-0222	Vacant Dwelling	Dwelling	Not Eligible	No Additional Work
024-0225	Barn	Domestic Farmstead	Not Eligible	No Additional Work
024-0238	Rising Zion Church	Church	Not Eligible	No Additional Work
024-0240	Clinton Manor	Dwelling	Eligible	Mitigation of Adverse Effects
024-0252	Greenfield Farm	Domestic Farmstead	Not Eligible	No Additional Work
024-5078	Vacant Dwelling	Dwelling	Not Eligible	No Additional Work
024-5079	Dwelling	Dwelling	Not Eligible	No Additional Work
024-5082	Pine Grove School	School	Listed	Mitigation of Adverse Effects
024-5120	Dwelling	Dwelling	Not Eligible	No Additional Work
272-0104	Brown Farm	Domestic Farmstead	Eligible	No Additional Work
072-0205	Dwelling	Dwelling	Not Eligible	No Additional Work

The archaeological investigation of approximately 1,100 acres within the limits of disturbance resulted in the discovery of one probable African American cemetery (44CM0134) and eleven archaeological sites (44CM0135, 44CM0136, 44CM0137, 44CM0138, 44CM0139, 44CM0140, 44CM0141, 44CM0144, 44CM0145, and 44CM0146) within the project limits. A second, possible cemetery (44CM0152) was discovered just outside of the project area along Miller Lane. No historic structures were identified in the project area. With the exception of 44CM0137; which was heavily disturbed; all sites exhibited a high degree of stratigraphic integrity and avoidance or Phase II evaluations are recommended. With the exception of the Jeffries Site/Buena Vista and Chimney in the Field, both located within the proposed waste disposal area, current construction plans indicate that the archaeological sites identified during this investigation will not be impacted by proposed construction.

The Jeffries Site (44CM0136) is located in the central portion of the waste disposal area and includes the remains of a domestic complex that dates to the early nineteenth century. Historic records suggest the



dwelling at Site 44CM0136, was once known as “Buena Vista”, and was the home of John and Martha Jeffries. Newspaper articles from the late 1970s indicate the dwelling was dismantled and assimilated into the reconstructed Edgemont (072-0101) approximately 4 miles from its original location. However, the remainder of historic deposits appear to retain a high degree of integrity.

The Chimney in the Field (44CM0138) is located in the northern portion of the waste disposal area and includes the remains of a late nineteenth/early twentieth century dwelling. The site is indicated by a partially collapsed mud mortared chimney; however, no structure is noted in this location on the 1864 Gilmer Map nor is one visible on the 1947 and 1958 historic aerial images of the project vicinity. The high concentration of burned artifacts and its absence on the 1947 aerial suggests that it burned prior to 1947.

### **Cultural Resources Identified within the Green Ridge Property**

<b>DHR ID</b>	<b>Site Name</b>	<b>Site Type</b>	<b>Recommendation</b>
44CM0134	Cemetery	Cemetery	Avoidance or Cemetery Delineation & Burial Relocation Survey
44CM0135	Reverend’s Still	Illegal Distillery	Avoidance or Phase II Evaluation
44CM0136	Jeffries Site	Domestic Farmstead	Phase II Evaluation
44CM0137	Frog Site	Single Dwelling	No Additional Work
44CM0138	Chimney in the Field	Single Dwelling	Phase II Evaluation
44CM0139	Hobson Site	Single Dwelling	Avoidance or Phase II Evaluation
44CM0140	Ammoynet Farmstead	Domestic Farmstead	Avoidance or Phase I Survey
44CM0141	Jesse Parker Farmstead	Domestic Farmstead	Avoidance or Phase II Evaluation
44CM0144	Rockpile	Domestic Farmstead	Avoidance or Phase II Evaluation
44CM0145	Hobson Ridge	Domestic Farmstead	Avoidance or Phase II Evaluation
44CM0146	Jones House	Domestic Farmstead	Avoidance or Phase II Evaluation
N/A	Hobson Cemetery (Unconfirmed)	Suspected Cemetery	Archaeological Monitoring of Ground Disturbance in Suspected Location
44CM0152	Suspected Cemetery	Cemetery	Outside of Project Area

A cemetery identification survey was conducted concurrently with the archaeological survey. Deeds of sale for one of the parcels included in the Hobson property mention a reservation of burial and visitation rights, but do not specifically reference the location of the family cemetery and its exact location within the 55 acre parcel is not known. The topsoil was mechanically removed from approximately one acre in what was thought to be the most likely cemetery location, but no evidence was found of the burial site. Archaeological monitoring of ground disturbing activities in the suspected cemetery location is recommended.

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## INTRODUCTION

Browning & Associates of Hartfield, Virginia conducted a Phase I cultural resources survey of the ±1,178 acre Green Ridge property (*surveys by Highmark Engineering dated May 24, 2018, March 4, 2019, April 17, 2019 and per boundary survey by Draper Aden Associates dated March 29, 2019*) between September 2018 and March 2021 (Figure 1). The property lies north of US 60 (Anderson Highway) immediately west of the Powhatan/Cumberland County boundary, near the community of Clinton in Cumberland County, Virginia. It is bisected by Pinegrove Road and Miller Lane which roughly follow the western and eastern project boundaries, respectively. To the north, the property is bound by Muddy Creek (Figure 2).

The proposed project includes construction of a commercial landfill. At maximum capacity in several decades, the waste disposal area will rise approximately 230 to 330 feet above the current landscape. Ground disturbing activities will include construction of the waste disposal area, an entrance road, borrow pits, related infrastructure, and reorientation of a portion of Pinegrove Road and Miller Lane and will be confined to approximately 1,100 acres that were the subject of this investigation.

The proposed project will require permits from the Army Corps of Engineers for impacts to wetlands, and as such is subject to Section 106 review. The investigation described in this report was conducted for Green Ridge Recycling and Disposal Facility, LLC in anticipation of a request for a Phase I archaeological investigation from the Virginia Department of Historic Resources.

Lyle Browning, M.A., RPA served as the Principal Investigator for the Phase IA survey of the property. Craig Rose, M.A. served as Principal Investigator for the Phase IB survey. Lyle was the author of the “Unevaluated Structure” discussion and the Phase IA site descriptions and Craig authored the remainder of this report. Field investigations were carried out by Jorge Quintana, Emery Bencini, Mike Johnson, Steve Rann, C. Niel Manson, and Larson Rife under the supervision of Craig Rose and Lyle Browning. Finds were analyzed and cataloged by Craig Rose and Mike Johnson in Clinton, Virginia. Artifacts and the original copies of field notes and maps will be submitted to the Virginia Department of Historic Resources at the conclusion of this investigation.

All aspects of this investigation conformed to guidelines established in *Section 106 of the National Historic Preservation Act of 1966, as amended, the Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation* (Childs et al. 2000) and the requirements outlined by the Virginia Department of Historic Resources (DHR) in *Guidelines for Conducting Historic Resources Survey in Virginia* (Department of Historic Resources 2017).

## PROJECT ALTERNATIVES

Section 106 has implementation regulations under the Code of Federal Regulation, Title 36, Part 800 (36CFR800). In that regulatory framework, a project should identify reasonable alternatives to the proposed project area in the event that one or more of the alternatives are shown to be problematic. The reasons for a determination are based upon investigation of alternatives AND upon the weighing of the various factors that have an effect upon the undertaking. Three such alternative areas were identified for the proposed Green Ridge project. Archival research was used to establish the potential for cultural resources and concluded that the original, proposed project location, described in this report, was least likely to impact potentially significant cultural resources. The results of this analysis are described in “Cultural Resources Evaluation: 3 Alternatives to the Chosen Alternative at the Proposed Green Ridge Landfill, Cumberland County, Virginia” included as Appendix 1.



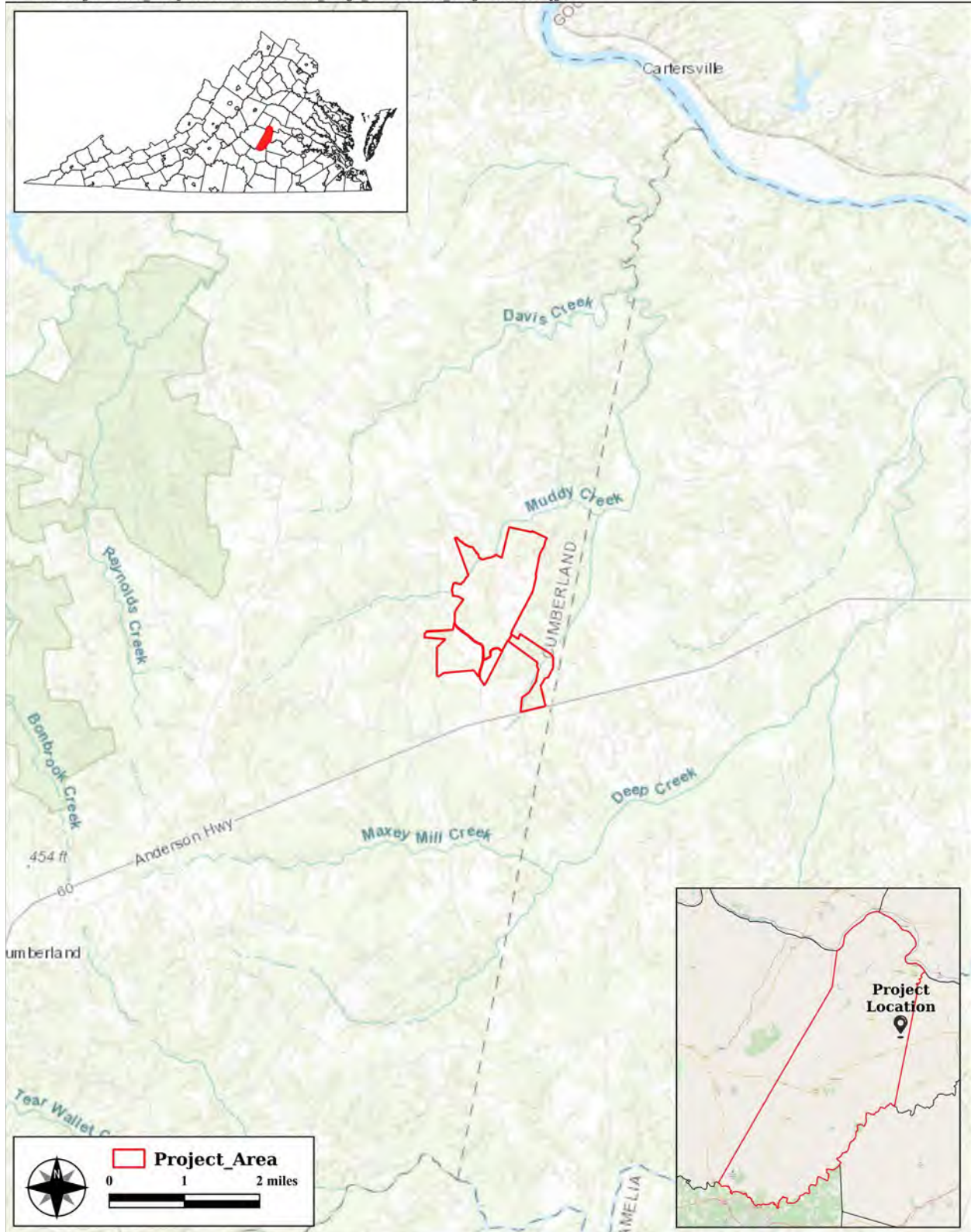


Figure 1: Overview of project area on ESRI Topo World map.





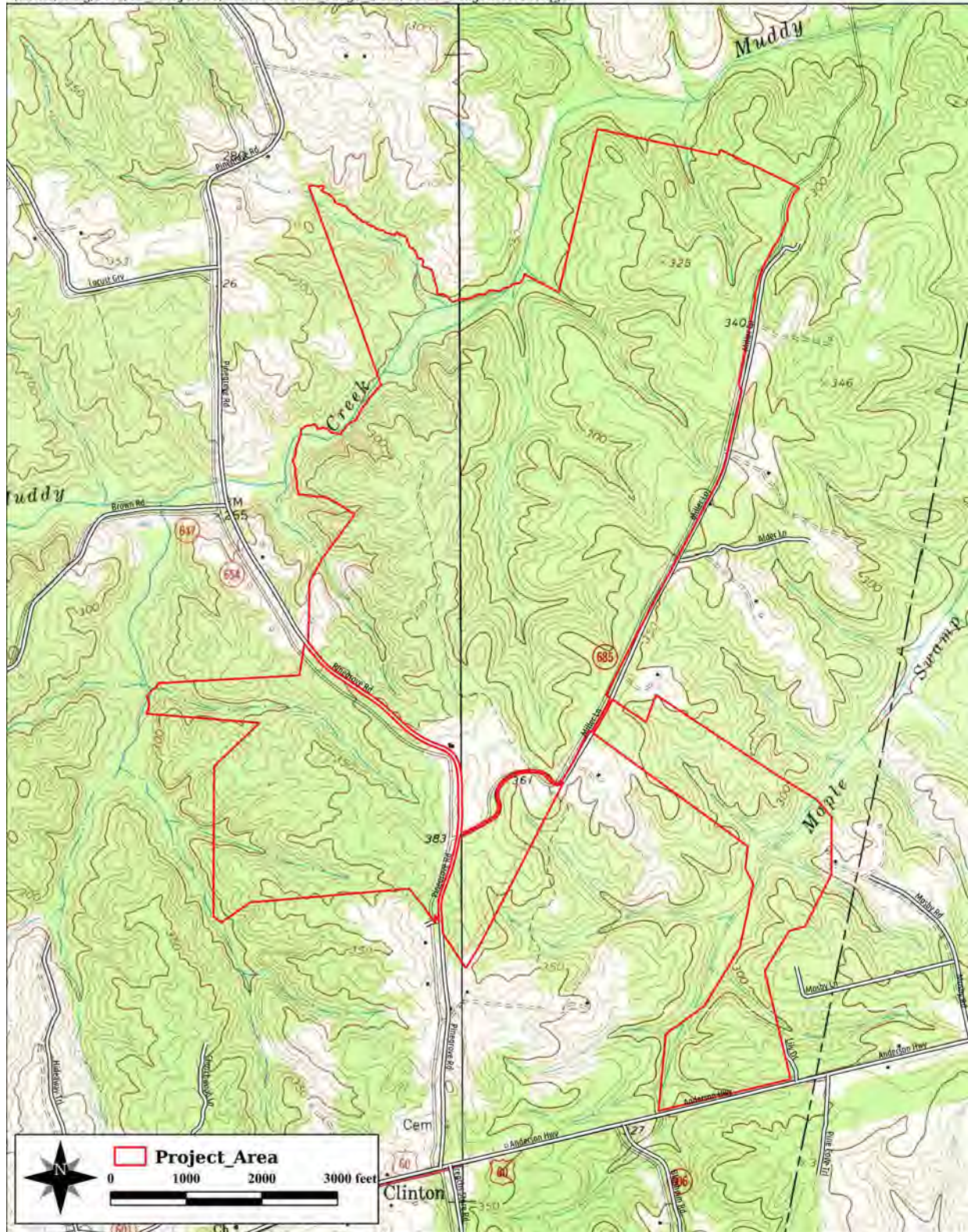


Figure 2: Location of the project area on the 1969 USGS Trenholm and Whiteville 24K quadrangles..





## GEOGRAPHIC SETTING

The project area lies within the Outer Piedmont sub-province of the Piedmont physiographic region of Virginia (Bailey 1999). Bound by the Blue Ridge Mountains to the west and the Fall Line to the east, the Piedmont Province is the largest in Virginia, and is characterized by gently rolling topography and deeply weathered bedrock overlain with a 7 to 70 foot thick layer of saprolite, with elevations ranging between 1,000 feet above mean sea level (a.m.s.l.) along its western boundary to 160 feet a.m.s.l. near the Fall Line (Radford University 2014). Monadnocks, or isolated hills, such as Willis Mountain, approximately 20 miles southwest of the project area, are formed from more resistant geologic deposits, and are scattered throughout the Piedmont region (National Park Service 2017). The Piedmont exhibits a dendritic, or vein-like drainage pattern with watercourses that generally flow in a southeasterly direction (Radford University 2014).

The subject property includes ridge fingers, erosion spurs, and steep ravines around the perimeter of a broad upland ridge, bound by Muddy Creek to the northwest and Maple Swamp Creek to the southeast. Drainage is provided by unnamed, intermittent tributaries to both creeks. Maple Swamp Creek empties into Muddy Creek about three-quarters of a mile northeast of the project area. Muddy Creek drains into the James River about five and a half miles north of the project area, downstream from the town of Cartersville.

Elevations in Cumberland County range from 200 to 500 feet above mean sea level (a.m.s.l.) (Reber et al. 2007). Within the project area, elevations range from 240 feet a.m.s.l. in the wetlands surrounding Muddy Creek along the northern project boundary to 380 feet a.m.s.l. near the intersection of Pinegrove Road and Miller Lane, in the southern portion of the project (see Figure 2). Ridge tops are dissected by steeply incised, eroded drainage channels, some with slopes in excess of twenty-five percent.

Vegetation within the project area is typical of most areas of the Piedmont and has been heavily altered by anthropogenic activities, including agriculture and logging. At the time of survey, the vast majority of the project was wooded and surface visibility was limited. In the northern half of the property, planted pine forests are common; while in the southern portion of the project, some areas of mature deciduous forest exist and are principally comprised of oak (*Quercus sp.*) and hickory (*Carya sp.*) in upland areas, and beech (*Fagus sp.*) and Poplar (*Liriodendron sp.*) in ravines. Recently clearcut or 10± year old clearcut secondary forests were also encountered throughout the property.

The project area has a temperate, humid climate with average temperatures that range from 38 degrees to 75 degrees Fahrenheit, with temperature extremes ranging from 12 degrees in the winter to 102 degrees in the summer. Average annual precipitation is around 45 inches with highest levels occurring from late spring through summer. At the time of this investigation, temperatures and rainfall totals were seasonable.

## RESEARCH DESIGN

The objective of this investigation was to identify locations within the project area that contain cultural resources and to provide a preliminary assessment of their research potential. Research methods included archival research, historic map projection, visual inspection of the project area, and systematic shovel test pit excavation in portions of the property suspected to have an increased potential to contain subsurface cultural deposits. Metal detection of low density historic artifact scatters was also performed.



## ***Documentary Research***

During the initial stage of this investigation, DHR's Virginia Cultural Resource Information System (V-CRIS) was queried to identify the types of archaeological sites and architectural resources recorded in the project vicinity. The query results and aerial photographs of the project vicinity were incorporated into a project GIS, used to identify portions of the project area with an increased likelihood to contain historic cultural resources, or "high probability areas."

Throughout the investigation, official histories, USDA Soil Survey reports, archaeological reports, and scholarly literature databases were consulted to provide a context for the interpretation of prehistoric and historic cultural resources that might be discovered during the field investigation.

## ***Fieldwork***

The field methodology included visual inspection and systematic shovel testing. Tree falls, erosional surfaces, or otherwise exposed ground surfaces observed during the survey were inspected for surface artifacts. The results of the visual inspection and historic map and aerial review were used to define high, medium, and low probability areas within the project area. Shovel test pits were excavated at 50 foot intervals in areas deemed to have an increased potential to contain cultural deposits. Areas that were poorly drained or exhibited excessive slopes or signs of modern disturbance were visually inspected, but were not subject to subsurface testing.

A total of 2,447 shovel test pits (STPs) were excavated along a 50-foot grid within the project area to establish the presence or absence of cultural materials and to assess stratigraphic integrity. Four "radial" STPs were excavated at 25-foot intervals around each positive pit to refine horizontal site boundaries, except where radial pits fell between other positive pits or fell in areas that were otherwise considered not testable. STPs measured at least 15 inches in diameter and were excavated by natural soil horizon/cultural layer to sterile subsoil. All soil was sifted through 1/4-inch mesh screen and each pit was backfilled and stabilized before moving to the next STP. Soil colors were classified using the Munsell Soil Color Chart and soil textures were described using the USDA soil texture triangle. Traditional pedological classifications (A, E, B, etc.) were used to describe natural soil horizons. "Ap" was used in specific reference to the plow zone, or plowed soil horizons. The term "Fill" was used to describe cultural layers. Layer designations were defined by identifiable changes in soil color, texture, and inclusions, and cultural content.

In locations where visual inspection suggested a high probability for archaeological resources and the STP survey produced little or no evidence of historic occupation, a metal detector survey was employed to establish the presence or absence of subsurface deposits and/or to refine horizontal site boundaries. Such surveys were carried out at the discretion of the field supervisor. Metal detection survey areas were defined by the supervisor based on environmental conditions, including changes in vegetation, topography, and any observed surface indications of cultural activity, such as stone piles possibly indicative of chimney bases or possible cellar holes. Metal detection survey areas were cleared of surface vegetation using a string trimmer with metal blade and were divided into 25 foot squares. One hundred percent of each square was metal detected and all metal detector strikes were mapped with the exception of high density scatters, which were horizontally defined and noted on field maps. Once mapped, a representative, random sample of metal detector strikes were excavated to provide a sample of the metal artifacts contained within the site. Non-metal artifacts encountered during the excavation of the metal detector strikes were also retained and included within the site inventory.



## Laboratory

Artifacts were inventoried, analyzed, and curated at the field house in Clinton, Virginia in compliance with the Virginia Department of Historic Resources' State Collection Management Standards (2017). Artifacts are currently stored in a climate controlled facility on the Green Ridge property and will be turned over to the Virginia Department of Historic Resources for permanent curation at the conclusion of this investigation.

Artifacts were classified using a system modeled after the Method of Abstracting the Carolina Artifact Pattern employed by Stanley South in *Method and Theory in Historical Archaeology* (South 1977), expanded to allow for the classification of prehistoric artifacts and those dating to more modern time periods. Historic artifacts were classified into South's Groups (Kitchen, Bone, Architectural, Furniture, Arms, Clothing, Personal, and Activities) and Classes, and were further sorted by material type, vessel type, decorations, and method of manufacture, where definable. Prehistoric artifact were sorted based on material type, artifact type, and recognized classifications, such as ceramic type or stone tool type. Other informative characteristics were also recorded, including temper, decorative motif, and morphology.

Artifacts were grouped by provenience, soil layer, and artifact type and each artifact group was assigned an accession number comprised of the site trinomial (44CM0145) or location ID for isolated finds (Loc1), unit type/number (STP1001), soil layer (F1 for Fill 1), excavation level (L1), and artifact number (ex. 44CM0145.STP1001.F1.L1.1).

Artifact information was cataloged in a PostGIS database extender for the PostgreSQL Database Management System and is included in the project GIS. The resultant database is geographically enabled, allowing seamless distribution of artifact attributes and location information.

## HISTORIC CONTEXT: GEOGRAPHY AND CULTURE

In *Guidelines for Conducting Historic Resources Survey in Virginia* (Department of Historic Resources 2017), DHR outlines a framework in which cultural resources are grouped into historic contexts; defined by common geographic areas, cultural themes, and chronological periods. Historic contexts provide the foundation for researchers to interpret and evaluate cultural resources based on the concept of representativeness.

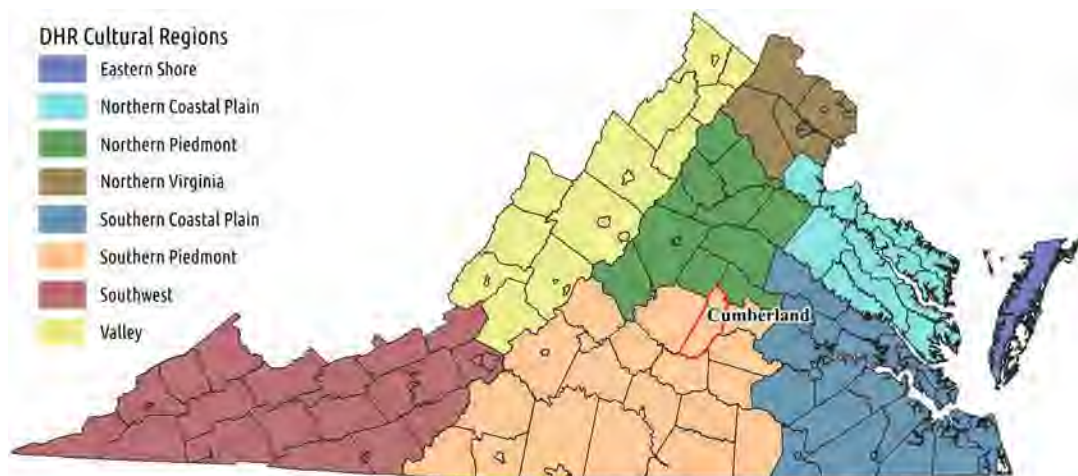


Figure 3: Virginia Department of Historic Resources' Cultural Regions



## REGIONAL DIFFERENCES

DHR divides the State's physiographic provinces into eight cultural regions, based on settlement patterns, historical development, and cultural distinctions. These regions include Northern Virginia, the Northern Coastal Plain, the Southern Coastal Plain, the Eastern Shore, the Northern Piedmont, the Southern Piedmont, the Valley, and the Southwest (Department of Historic Resources 2017) (Figure 3). The current project area falls within the Southern Piedmont region located south of the James River and north of the Virginia-North Carolina boundary.

## THEMATIC CONTEXTS

Thematic contexts, or cultural themes, are used to group associated human activities and may or may not be confined to specific geographic locations or time periods. DHR identifies eighteen thematic contexts that are further divided into "associated property types".

- |                           |             |  |
|---------------------------|-------------|--|
| • Subsistence/Agriculture | • Domestic  | • Health Care/Medicine                                   |
| • Military/Defense        | • Education | • Government/Law/Politics                                |
| • Recreation/Arts         | • Religion  | • Industry/Processing/Extraction                         |
| • Technology/Engineering  | • Funerary  | • Settlement Patterns                                    |
| • Ethnicity/Immigration   | • Landscape | • Transportation/Communication                           |
| • Commerce/Trade          | • Social    | • Architecture/Landscape Architecture/Community Planning |

Thematic contexts intentionally overlap and are intended to generate a broader context for the interpretation and evaluation of site-specific data. The eighteen themes defined by DHR and their associated property types form a comprehensive set of research fields that help standardize the classification of Virginia's cultural materials and although they are not restricted to a particular time period or region, they are both regionally and temporally distinct. By standardizing the classification of resources, thematic contexts allow researchers and planners to identify and implement preservation priorities within the planning process.

## CULTURAL PERIODS

DHR divides the history of Virginia into eleven cultural periods (Paleo-Indian, Archaic, Woodland, Settlement to Society, Colony to Nation, Early National, Antebellum, Civil War, Reconstruction and Growth, World War I to World War II, and The New Dominion) based on identifiable changes to cultural themes documented in the archaeological and written record.

### ***Paleo-Indian (10000 B.C. – 8000 B.C.)***

The Paleo-Indian period coincided with the Late Glacial period when sea levels were approximately 230 feet below current levels (Anderson et al. 1996). A changing climate affected the environment during the Paleo-Indian period. Warmer temperatures and increased rainfall in the Mid-Atlantic region led to a transition from boreal forest to mixed conifer-northern hardwood forest and some deciduous forest (Boyd 1989). Although warmer than the preceding period, the general climate was approximately 10-15°C colder and 20-50% drier than at present (Connors 1986; Kelly and Todd 1988; Boyd 1989). Many species of megafauna became extinct impacting human subsistence patterns, although it is debatable whether their extinction affected Paleo-Indians in the Virginia region.

Archaeological remains indicate the earliest inhabitants of Virginia led a nomadic lifestyle with transient settlements, hunter-gatherer subsistence patterns, and archaeological material culture primarily consisting of fluted points. Settlements likely consisted of basecamps located near lithic quarries and reduction sites, and/or food procurement sites (Gardner 1977; McCary 1976). Although Reid (Reid 1997) estimates the Virginia region had a low population of 1,500 by the end of the Paleo-Indian period, the accuracy of such estimates are challenging given the scarcity



of archaeological data. Research by McCary (McCary 1976) and Turner (Turner III 1989) suggest Paleo populations were highest in the southern Piedmont and Coastal Plain regions of Virginia with a close correlation between site locations and desirable lithic resources and oak-hickory forests.

The Clovis fluted projectile point is recognized as an identifying characteristic of a Paleo-Indian site. The Virginia region contains fluted points along with other Paleo-Indian components such as the Folsom and Dalton-Hardaway projectile points, unifacial scrapers, graters, knives, and occasional bone and antler implements (Gardner 1989). Virginia has relatively few well-preserved Paleo-Indian sites due to the age of sites and sparse population density in the region (Department of Historic Resources 2017).

A majority of Paleo-Indian artifacts, including Clovis, Cumberland, and Dalton projectile points, have been recovered throughout the Piedmont and Coastal Plain; however, five counties in the Ridge and Valley physiographic region contain relatively large quantities of fluted points. The Flint Hill Complex, located southwest of Front Royal on the south fork of the Shenandoah River, and a concentration of fluted points noted by McCary (McCary 1976) near Saltville, approximately 100 miles southwest of the project area in the Southwest Cultural Region of Virginia (Turner III 1989). Bottoms (Bottoms 1969) Michlovic (Michlovic 1975) and Turner (Turner III 1984) attribute Paleo activity in the vicinity of Saltville to its unique geology and the abundance and accessibility of salt, which would have made the area a prosperous hunting ground.

Data from archaeological excavations at the Cactus Hill site in Sussex County, VA indicate that Paleo-Indians may have inhabited Virginia prior to 10000 B.C., the traditional starting date for the Paleo-Indian period (Department of Historic Resources 2017).

### ***Archaic (8000 B.C. – 1000 B.C.)***

The Archaic period coincides with the beginning of the Holocene geological period around 8000 B.C. Climatic and environmental changes prompted increasing sedentism, particularly in riparian settings. Archaeological sites of this period are typically larger and more frequent than those dating to the Paleo-Indian period, suggesting an increase in population. Sites from this period typically indicate exploitation of more diverse lithic resources, such as quartz, quartzite, and rhyolite.

Researchers typically divide the Archaic period into three sub-periods: Early Archaic (8000 B.C. –6500 B.C.), Middle Archaic (6500 B.C. –3000 B.C.) and Late Archaic (3000 B.C. –1000 B.C.).

### ***Early Archaic (8000 B.C. – 6500 B.C.)***

The Early Archaic period heralded warmer, wetter, and more seasonally varied environments although climates were cool relative to modern temperatures. Forests were mostly hardwood mixed with spruce and hemlock (Delcourt and Delcourt 1981). The Early Archaic period shares enough similarities with the Paleo-Indian period that some researchers argue the two should be grouped together (Gardner 1974; Custer 1990; Gardner 1989). Groups were highly mobile and settlements mirrored Paleo-Indian patterns. However, sea levels were on the rise and, in contrast to the previous period, Early Archaic people began regularly exploiting upland settings (Custer 1983, 1990).

During the Early Archaic, a modern faunal assemblage was present including deer, elk, and moose (Custer 1990). Reliance on small game increased and Early Archaic people hunted gray





fox, opossum, cottontail, raccoon, squirrel, beaver, woodchuck, turkey and pigeon. This new source of animal protein coupled with an increased use of local, readily available raw lithic material likely brought about more advanced lithic technologies. People manufactured smaller notched haft points and archaeological evidence indicates the creation of an improved throwing spear (Geier 1990; Gardner 1974). The presence of Big Sandy, Charleston Corner-Notched, Hardaway, Kirk corner notched, or Palmer projectile points is a distinguishing characteristic of Early Archaic sites (Coe 1964).

### **Middle Archaic (6500 B.C. – 3000 B.C.)**

During the Middle Archaic sub-period, climate change spurred by the Hypsithermal Climate Optimum brought warmer temperatures. Oak and pine forests dominated the Virginia region. As sea levels approached modern levels, swamps and estuaries appeared on the landscape (Delcourt and Delcourt 1981).

Native Americans primarily established their camps near ideal seasonal hunting and foraging locations as opposed to camping near restricted lithic raw material sites (Gardner 1983). Some functional characteristics of tools continued from Early Archaic technology, but there was a marked difference in appearance (Gardner 1974). A more diversified tool kit, including nutting stones, suggest an increased reliance on floral resources (Jefferies 1996). New projectile points appeared in Southwest Virginia including the Guilford, LeCroy, Morrow Mountain, and Stanly (Hranicky 1994).

### **Late Archaic (3000 B.C. – 1000 B.C.)**

The Late Archaic sub-period coincided with the Sub-Boreal climate episode when the rate of sea level rise decreased dramatically (Stevens 1991). In coastal settings, shellfish became a diet staple as evidenced archaeologically by the presence of large shell middens in coastal environments. Habitation sites transitioned from temporary, seasonal camps to more permanent, sedentary settlements concentrated in riparian settings (Barber et al. 2004). Populations increased and more intensively occupied sites exhibited numerous hearths, and a wider variety of archaeological contexts including formal burials (McLearen 1991; Ward 1983).

Points associated with the Late Archaic are the Brewerton, Halifax, Lackawaxen, Lamoka, and Merom. In the Southern Piedmont, the Savannah River Stemmed point was especially prolific. The Savannah River point brought about an emphasis on percussion flaking technology from start to finish. Among the material culture that emerged during this period, ground stone artifacts such as the ground stone grooved axe and soapstone bowls appeared and there was an increase in use of expedient tools (McLearen 1991).

### **Woodland (1000 B.C. – A.D. 1600)**

The Woodland period ushered in dramatic population growth, increased sedentism, more advanced technologies, including pottery, horticulture, and the adoption of the bow and arrow. Social organizations became more complex, shifting from bands to tribes and chiefdoms. Villages became more permanent and grew substantially in size. There was a shift from seasonal systems with two bases to systems with one single base and associated foray camps (Hodges 1991; Gardner 1982, 1984). The shift toward sedentism is associated with the domestication of plants. Excavations at Woodland settlements reveal more complex social practices such as ceremonialism associated with burials.



Researchers divide the Woodland period into three sub-periods: Early Woodland (1000 B.C. – A.D. 300), Middle Woodland (A.D. 300 – A.D. 1000), and Late Woodland (A.D. 1000 – A.D. 1600) based on quantifiable changes in material culture (Department of Historic Resources 2017).

### **Early Woodland (1000 B.C. – A.D. 300)**

Early Woodland Native Americans began to show a strong preference for floodplain and riverine settings. They often established settlements on terraces rich with hydrophytic vegetation including beech and sycamore trees (Mouer 1982). In the Virginia Southern Piedmont, a combination of floodplains and some interior regions were the preferred locations for villages (Klein and Klatka 1991; Mouer 1991).

Villages became more permanent and grew substantially in size. There was a shift from seasonal systems with two bases to systems with one base and associated foray camps (Hodges 1991; Gardner 1982, 1984). The swing toward sedentism is associated with the domestication of plants. Excavations at Early Woodland settlements reveal more complex social practices such as ceremonialism associated with burials.

McLearen (McLearen 1991) notes the most significant transformations in material culture from the Late Archaic to the Early Woodland include a phasing out of the broadspear (particularly the Savannah River tradition), more elaborate ground stone artifacts, and the development of ceramic technology. In the Piedmont region, there was a heavier reliance on quartz and expedient tools produced from flakes (McLearen 1991). Ceramic vessels became commonplace around 600 B.C. and include Badin, Currituck, and McCary ceramic types in the Piedmont region (McLearen 1991).

### **Middle Woodland (A.D. 300 – A.D. 1000)**

With the widespread adoption of ceramic technology, prehistoric peoples become increasingly sedentary and populations continued to rise during the Middle Woodland period. Faunal remains provide evidence that some Middle Woodland settlements were occupied year-round (Barber 1981) and an increasing number of re-occupied sites and developing exchange systems may indicate the landscape is starting to “fill up” and cultural territories are becoming more defined (Blanton 2000).

Fox Creek, Jacks Reef, Potts, and Rossville projectile points were introduced (Stewart 1992). Other artifacts include stone mauls, hollow antler tines, and an increase in the quantity and size of ceramic vessels. It was during this period that ceramics became a mainstay (Stewart 1992). Both Hyco and Vincent ceramic variants are common throughout the Virginia Piedmont during this period.

### **Late Woodland (A.D. 1000 – A.D. 1600)**

In the Late Woodland period, the cultivation of corn, beans, and squash became an essential component of the subsistence systems in the Piedmont of Virginia, and large, permanent settlements developed along the fertile floodplains and low-lying ridges surrounding the region’s major drainages. With a change to a horticulturally-based subsistence system, inhabitants became increasingly sedentary, as crops could not be left for long periods of time once sowed.

Archaeological evidence of continuously occupied settlements comes in the form of substantial middens, palisaded villages, long houses, communal houses, a variety of storage pits, and burial features (Barber et al. 2004). It is unclear if palisades were constructed for protection or to define





activity areas, or both, but within the palisades, houses and communal structures were typically arranged around a central plaza, indicating some degree of social organization (Egloff 2000). Clarksville, Haw River, and Dan River ceramic series and Clarksville and Fort Ancient projectile points are considered defining artifact types for sites in the southern Piedmont that date to this period (Coe 1964).

### ***Settlement to Society (1607-1750)***

#### **Contact Period**

Ethnohistorical accounts suggest the Spanish reached the mouth of the Chesapeake Bay as early as the 1520s, having contacted the Powhatan Confederation by the middle of the century. In 1570, Spanish Jesuits founded the Ajacan mission (also known as St. Mary's Mission), believed to have been on the York River; however, less than a year later all of the mission's inhabitants were slain by local Native Americans, with the exception of a small boy named Alonso de Olmos. The Spanish retaliated in 1572, retrieving Alonso and killing twenty Powhatans, but made no attempt to reestablish the mission. In 1607, the English settlement of Jamestown was established on a defensible peninsula on the James River (Shackel and Little 1994). Jamestown would become the first permanent English settlement in North America.

At the time of English settlement, eastern Virginia was controlled by the powerful Powhatan Confederation, an alliance of approximately thirty Algonquian tribes comprised of 14,000 to 21,000 individuals (Egloff and Woodward 2015). To the west were the Siouan-speaking Manahoac of the upper Rappahannock drainage, the Monacan of the James River valley, and Occaneechi, Sappony, and Tutelo of southwest Virginia; to the south were two small tribes of the Iroquois Confederacy, the Nottoway and Meherrin (Bracey 1977). The fall line roughly marked the boundary between the Powhatan Confederacy and western tribes and the Powhatans conducted seasonal raids to reinforce the boundary.

The early western political border separating the interior native populations from English settlements followed the fall line; which marked the limits of navigation for ocean-going vessels (Hatfield 2004). Just, as the fall line had been the border marking Powhatan territory, so it became the border marking early English control, as evidenced in John Smith's map of Virginia first drawn in 1608 (published in 1612) where he visually identified Virginia and Powhatan territory as similar – if not the same – entity (Hatfield 2004).

With the focus of English settlement primarily confined to the Coastal Plain, indigenous Native American communities in the interior of the Virginia colony were able to retain their traditional ways of life longer than their counterparts in the east. Initial interactions with Native Americans of the Tidewater frontier came in the form of explorers and trade parties, followed by a continuous migration of European settlers.

#### **Frontier Period**

The earliest written records of European and Native American encounters in western Virginia begins with Abraham Wood's expedition in 1654 followed by Batts and Fallam in 1671, and Governor Alexander Spotswood's 1716 expedition from Williamsburg into the Shenandoah Valley (Rouse 1976; Barber et al. 2004).

European westward expansion was slow. Typically, initial expansion came in the form of large land grants bestowed by the King of England. Over time, these grants were subdivided into smaller and smaller parcels as more settlers moved west. Barber et al. (Barber et al. 2004) states

that while the earliest settlers were mostly English, a majority of the settlers in western Virginia in the early 18<sup>th</sup> century were of German or Scots-Irish descent. These settlers were fleeing religious persecution in Europe and subsequent discrimination in Pennsylvania. German and Scots-Irish settlers claimed the Shenandoah Valley by the mid-18<sup>th</sup> century as they largely moved down the backcountry via the Great Wagon Road, bringing non-English styles of religion, architecture, and agricultural practices. Examples of imported architectural styles include houses and bank barns built of stone instead of the brick structures more common in English communities (Department of Historic Resources 2017). As these English and non-English pioneers gained control of the interior regions, their understanding of the over ground trade networks increased.

Following the establishment of the Carolina and Maryland colonies on the Virginia borders, Virginia had to compete for trade with native populations outside of its boundaries. Carolina tried to stop Virginia traders from doing business with natives within its borders and in 1670, the Carolina Lords Proprietors ratified several acts passed by the Assembly of Albemarle County, one of which included a prohibition on “strangers” trading with the Carolina natives (Hatfield 2004).

Virginia also attempted to guard its resources from other colonies and colonial powers. When the Dutch cut the Carolina Road through the western portion of the colony and began using Susquehannock natives to trade with the Ocaneechees of southern Virginia and Carolina, in a blatant attempt to circumvent a ban on trading with Virginia, Virginia responded in turn by passing an act in 1661/2 prohibiting “all... Indians to the Northward of Maryland from trucking, trading, bartering or dealing with any English or Indians to the southward of that place” (Bracey 1977). This intercolonial competition placed added value on pivotal points in the Native American overland trading network as control of such areas allowed Virginia direct access to commodities otherwise regulated by other colonies or powers in the maritime network of the coast. By the end of the 17<sup>th</sup> century, the web of overland trails in the Southern Piedmont had become integrated with maritime trade (Hatfield 2004).

### **Rise of the Plantation System and the Institution of Slavery**

As settlers pushed into the frontier of Virginia, they brought with them English culture and institutions associated with government, society and economy that had already been formalized in the Tidewater. These institutions included the House of Burgesses, established religion, and small commercial enterprises (Department of Historic Resources 2017). The new settlers raised tobacco, corn, potatoes, peas, sheep, cows, hogs, geese, bees, flax, and cotton (Bracey 1977).

Both the plantation system and the institution of slavery in Virginia are closely tied to tobacco monoculture, characteristic of farming practices beginning in the early 17<sup>th</sup> century. Following the successful cultivation of a milder type of tobacco by John Rolfe in 1612, tobacco quickly became the cash crop of the young Virginia colony. The complex process of tobacco cultivation led to the rise of the plantation system as a formula for economic success: large tracts of land cultivated with large labor forces (Department of Historic Resources 2017). While this system began in the Tidewater during the 17<sup>th</sup> and 18<sup>th</sup> centuries, it eventually expanded further inland along Virginia’s many navigable rivers. Docks belonging to large plantations dotted the shorelines of rivers and towns serving as courthouse complexes and tobacco warehouses; however, the plantations existed as virtually autonomous entities (Department of Historic Resources 2017).

The first Africans came to Virginia in the early seventeenth century, most likely as indentured servants; however, slavery gradually became entrenched in Virginia society as the demand for labor increased (Department of Historic Resources 2017). At first, English emigration provided this labor, but as economic conditions in England improved and cheap land was available in Virginia, fewer Englishmen arrived as indentured servants, leading Virginia planters to look elsewhere to satisfy the labor demand required by their plantations, thus establishing the institution of slavery (Department of Historic Resources 2017).

The development of slavery in Virginia as an answer to the labor problem largely resulted from Virginia's 17<sup>th</sup> century exposure to slavery in the English Caribbean colonies, which provided a legal and cultural precedent of enslaved labor, and intercolonial trade with Dutch merchants, who were largely based in New Netherland and provided access to slaves. Slavery in Virginia before the 1670s emerged from these two connections, and by the end of the century laws were passed further regulating the lives of slaves and belief in racial distinction solidified throughout the English Atlantic (Hatfield 2004). Though slavery, like the early practice of indentured servitude, departed from English labor traditions, it took root in the English New World largely because Spanish and Portuguese America had laid the template for American colonization – a template that included slave labor. When the English colonized the New World they looked to the successful Iberian colonies and tried to emulate them. From this, English colonists learned how Africans fit into a colonial American context as labor benefiting Europeans, so when a labor shortage arose, merchants made slaves available for purchase and the institution of slavery quickly became embedded in English American colonies. The Caribbean English colonists mimicked the Iberian model and later more northern English colonies, such as Virginia, followed suit (Hatfield 2004).

The success of tobacco led to the development of colonial plantations and manor houses; which were the embodiment of Virginia's economic dominance in the early and mid-eighteenth century, even though most people lived in far humbler circumstances than the wealthy landed gentry. Today, the surviving plantation mansions and their networks of dependencies, outbuildings, and gardens are symbols of some of our nation's finest achievements in colonial design and craftsmanship, which yield valuable archaeological, historical, and architectural information critical to understanding this period of our nation's history (Department of Historic Resources 2017).

English settlement in the area now known as Cumberland County likely began on the floodplains of the James and Appomattox Rivers, as settlers in need of fertile soils for growing tobacco continued to push westward. The influx of settlers led to the formation of Cumberland County from Goochland County in 1749.

### ***Colony to Nation (1751-1789)***

Virginia played an important role in the formation of the United States. Her residents participated in crucial political and military phases of the Revolutionary War and in the shaping of the nation following the conflict. Many of the nation's founding fathers called Virginia home and a majority of their homes still stand, significant both for their architecture and the status of those who lived in them.

The passing of the Stamp Act (1765) and the Townsend Acts (1767) ignited simmering tensions between the American Colonies and Britain, inciting Virginia's planter-statesmen, such as Southside resident Patrick Henry, to stand up to what they believed was taxation without



representation. Although initially considered radicals, Henry, and Samuel Adams and John Hancock of Massachusetts became the voice of the Revolution. While revolutionaries like Henry, Hancock, and Adams were early opponents to British sovereignty, many Southside residents were reluctant to break ties with England. However, as British taxes and tariffs engendered a spirit of bitterness and resentment among both the plantation class and poorer southern planters, attitudes quickly changed. Given its location along the western frontier of Virginia, Southside was largely unaffected by the War. Economic impacts were minimal and were principally the result of decreased tobacco production, as many farmers opted to grow food, instead of tobacco, in support of the war effort (Mix and Weber 1998).

Cumberland's population continually increased throughout the latter part of the eighteenth century, leading to the formation of Powhatan County, from the eastern half of Cumberland County in 1777. The original county seat for Cumberland County was located in Deep Creek, near the intersection of Anderson Highway (US 60) and Old Tavern Road (SR 629), in what is now Powhatan County. Following the founding of Powhatan County, the courthouse was moved to Effingham, now known as Cumberland Courthouse.

### ***Early National Period (1790-1829)***

Following the Revolution, Britain refused to recognize American sovereignty. The British interfered with U.S. / European trade, encouraged Native American resistance to westward expansion, and impressed American seamen into Royal Navy service. After the execution of King Louis the XVI of France, Britain and France were once again at war. The British still viewed Americans as British subjects, and expected the United States should cease trade with France and join the fight on behalf of Britain. In response to British impressment of American sailors and French confiscation of American ships, the U.S. passed the Embargo Act of 1807. Intended to force Britain and France to respect U.S. neutrality by placing restrictions on trade with both nations, the measure was largely ineffectual and had the greatest impact on American citizens, who were unable to sell their goods. The embargo was lifted in 1809 and impressment of American sailors continued. On June 18, 1812, the United States declared war on Great Britain and by August 1814, British forces had captured and burned the nation's capital, Washington, D.C., but the Americans ultimately prevailed and the war ended with the ratification of the Treaty of Ghent on February 17, 1815, sparking a new era of patriotism (Bracey 1977).

After the War of 1812, Britain imposed prohibitive tariffs against the importation of American grain. Wheat prices briefly rose to two dollars a bushel again in 1817 due to the "year without a summer" when the global climate felt the effects of the Tambora volcanic eruption in the East Indies, but these prices were short-lived and quickly declined, eventually hitting their lowest point in 1843 (Sharrer 2001). However, after the war ended the U.S. overall experienced economic gains that relieved the hardship caused by the embargo until the Panic of 1819, the first major financial crisis in the U.S. during peacetime. The Panic was blamed on the policies of the Second Bank of the United States and the collapse of the American economy continued through 1821, after which it recovered and later fell to the Panic of 1837. Virginia, like the rest of the United States, experienced a variety of periods of both prosperity and depression in the years between the Revolution and the Civil War (Bracey 1977).

The period after the Revolution is sometimes called the "Great Rebuilding" in many of Virginia's rural areas. During this time living standards improved, resulting in expansion or replacement of smaller dwellings characteristic of the previous period. In the Piedmont region, the I-house became the dominating domestic type rather than the previously commonplace one- or two-

room houses on small farms. Furthermore, numerous wealthy Tidewater families migrated to lands they owned farther west, transplanting the Tidewater-style plantation house where they went, and new churches were built as the Anglican Church was disestablished and other religious denominations rose.

The end of the 18<sup>th</sup> century and the beginning of the 19<sup>th</sup> century saw a transition in Virginia from a near completely agrarian colonial society to a new state with developing urban centers. Many Virginia counties had only small villages if they had any village at all, but the Early National Period witnessed the expansion of Fall Line river ports into flourishing economic centers, such as Alexandria, Fredericksburg, and Petersburg, as well as the prosperity of Piedmont county seats like Charlottesville, Warrenton, and Leesburg.

Originally known as Rutledge's Ford, Farmville was strategically located at the western limits of the Upper Appomattox Navigation Canal System. Constructed in 1795 and operational by 1816, the canal facilitated the transportation of tobacco and other local crops by bateau to markets in Petersburg, Williamsburg, and beyond. Northern Cumberland County used the Willis River for its transportation route. In 1774, the County Court acted to clear the river from its mouth to Ca Ira. The General Assembly passed the Willis River Navigation Act in 1787 and divided it into maintenance precincts. The head of navigation was Ca Ira but was later extended another 11.8 miles and ended in Buckingham County. Combined with the lower precincts of 33.6 miles length, the total canal system ran for 45.4 miles. The system was complete by 1797 and provided farmers with access to markets in Richmond, via the James River.

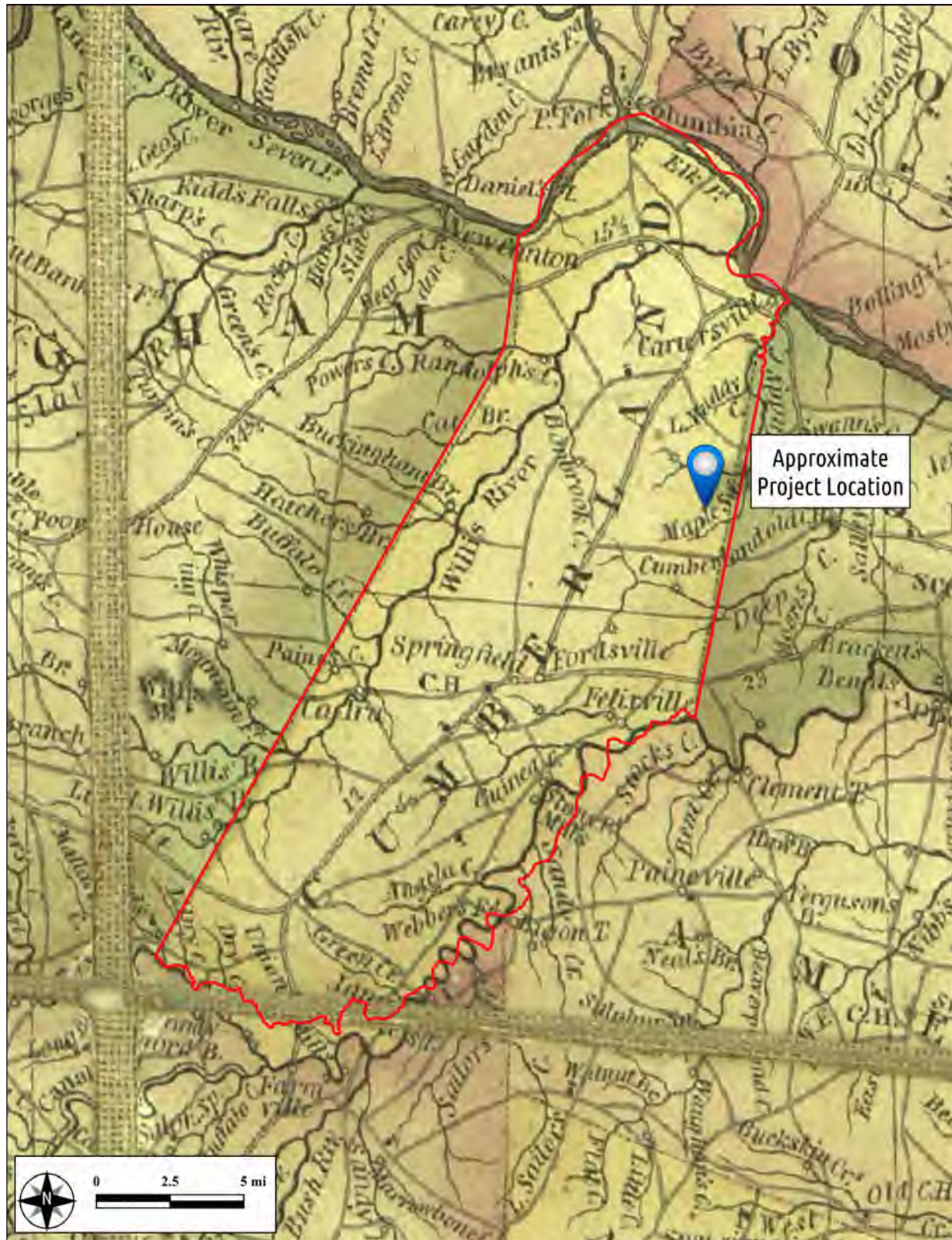
The Willis River and Appomattox canal systems remained the primary means of transporting goods to market until the mid-nineteenth century, when ever expanding railroad networks provided a faster, more reliable means of transportation. Milling was a major industry in Cumberland County during this period. Mills were set up by individual millers who operated on a custom basis, either taking a set amount of grain as a fee or on a pay basis for grinding. Mills also processed cotton, lumber and a variety of other materials. Boye's 1823 Map of Virginia lists 21 mill locations in Cumberland County (Figure 4). Three are located on Muddy Creek in the vicinity of the project area.

### ***Antebellum Period (1830-1860)***

In the first half of the nineteenth century, rolling roads and canals gave way to improved roadways and rail transportation. The Virginia Board of Public Works made great strides in augmenting the state's transportation network, and roads and railroads challenged the reign of the waterways as the primary means of transportation for the first time (Department of Historic Resources 2017). Originally designed to provide an easier and more reliable means to transport farm products to port towns, railroads transformed the way people and goods moved through the landscape, opening up previously inaccessible areas for settlement and exploitation. Railroads required tremendous amounts of lumber for the construction of rail beds, trestles, stations, and cars and as railroads expanded west, so too did the lumber industry, resulting in unprecedented deforestation in Virginia's Piedmont region. The South Side Railroad was chartered in 1846 and had line completed to High Bridge by 1853 and service to Farmville by 1855, thus focusing rail transportation in the southern half of the county and rendering the Appomattox River canal system obsolete by the late 1850s. As regional transportation continued to expand and improve, population increased, tobacco warehouses were opened, towns were planned and the Cumberland County economy evolved based on commercial agriculture (Beeman 1989).







**Figure 4: Approximate Project Location on 1823 Boye Map of Virginia.**  
*(Mills noted with circular symbol along creeks)*



**Figure 5: High Bridge in April 1865.**

A hallmark of the Antebellum Period was that of the abolitionist debate. In Virginia, there had been free African Americans from as early as the middle of the 17<sup>th</sup> century. There was also an increase in emancipations after the Revolution for those slaves who had aided the American cause. In 1782, the Virginia General Assembly made the legal process easier for freeing one's slaves and the second Great Awakening of the latter 18<sup>th</sup> and early 19<sup>th</sup> centuries furthered this spirit of egalitarianism (Bracey 1977). However, the early emancipation momentum slowed and anti-emancipation sentiment grew in the South in the wake of Nat Turner's 1831 Rebellion in Southampton County, which created much fear among white southerners who were concerned about such an insurrection from their own slaves or from neighboring freedmen. Following the rebellion, the Virginia House of Delegates debated the issue of the abolition of slavery over the winter of 1831-32.

### ***Civil War (1861-1865)***

Virginia hesitated in declaring her secession for several months after South Carolina became the first to secede from the Union. Elected candidates attended the 1861 Virginia Peace Convention to consider the issue. In a secret session April 17, 1861, Virginia's secession was approved, after the mid-April attack on Fort Sumter in South Carolina shifted many of the opinions at the convention away from peace. On May 23, 1861 a vote officially approved secession and Virginia joined the Confederacy (Bracey 1977). Like most places in the South, Cumberland County was suffering effects of the war by the summer of 1861 as the Confederacy demanded of them soldiers, equipment, and other supplies. The closest documented engagement between Union and Confederate forces was the Battle of High Bridge (DHR #024-0416), located approximately twenty miles southwest of the project area.

The battlefield spans Cumberland and Prince Edward counties and encompasses 3,760.5 acres. Included within the resource is the Battle of High Bridge (April 6-7, 1865) battlefield and the subsequent route of Confederate retreat. The battle was part of the Appomattox Campaign (March-April 1865). Following defeat at Sailor's Creek, Robert E. Lee's army retreated towards Farmville via the Southside Railroad. Union forces initially clashed with Confederate Reserves



at High Bridge on April 6<sup>th</sup>, but were repelled by the Confederate cavalry and Lee's army successfully crossed the bridge and made their way to Farmville on April 7<sup>th</sup> (Figure 5).

Once safely across, the Confederates destroyed the high bridge, but the wagon bridge below remained intact and the Union army followed the Confederates to Appomattox where Lee was forced to surrender, officially ending the Civil War. The American Battlefield Protection Program (ABPP) and DHR collaborated with the Civil War Sites Advisory Commission to determine the boundaries of the resource. The resource includes an earthen fortification at High Bridge (024-0416-0001). The fortification features a raised perimeter in the shape of a square bisected by another raised section that runs through the middle. The corners of the squares exhibit a dirt mound used for mounting artillery. It was garrisoned by the 3<sup>rd</sup> Virginia Reserves and equipped with artillery during the Battle of High Bridge.

On the morning of April 7, 1865, Robert E. Lee in retreat from his defeat at Sailor's Creek, held a meeting at 304 Beech Street while awaiting trains of rations, but was forced to leave before his supplies had arrived, upon learning that Union forces were entering the town. Lee's forces would head to Appomattox Station, where two days later, he surrendered to Ulysses S. Grant.

The 1864 Gilmer Map of Cumberland County shows considerable expansion in local transportation networks. Cartersville, Cumberland Courthouse, and Ca Ira remained the major settlements, but an expanded secondary transportation network facilitated settlement throughout the County. In the project area, secondary roads connected the Jesse Parker, Jeffries, and Ammoynett farmsteads to Cartersville, Cumberland Courthouse, and Richmond via the predecessors of Pinegrove Road, Miller Lane, Cartersville Road, and Old Courthouse Road (Figure 6).

### ***Reconstruction and Growth (1866-1916)***

With the ratification of the 1870 Constitution, Virginia was once again a part of the United States, slavery was outlawed, and for the first time Virginia had a state-subsidized public school system. Emancipated slaves made up the majority of the work force and large Antebellum plantations were divided into smaller farms, a tenant and share-cropping system became prominent throughout the South in the century following the war (St. John and St. John 1990).

Although policies established during the brief period of martial law following the Civil War benefited freedmen, making education, suffrage, and land ownership available to them, institutionalized racism would curb their upward advance. African American workers were paid less, and their schools did not receive as much funding as white schools.

In 1912, Julius Rosenwald, president of Sears, Roebuck, became a member of the board of directors for the Tuskegee Institute and provided funding for a project developed by Dr. Booker T. Washington to design and construct schools for African American children throughout the rural south. The Rosenwald Fund, established in 1917 would be used to construct more than 5,000 schools in areas where African American schools were traditionally underfunded. The Pine Grove School (DHR #024-5082), located along Pinegrove Road, west of the project area, is an example of a two-room "Rosenwald" schoolhouse constructed between 1917 and 1920.

Institutionalized segregation gave rise to African American culture and inspired the formation of institutions like the National Association for the Advancement of Colored People (NAACP), formed in 1909, but a lack of equal access to public institutions and programs created many difficulties in both economic and political advancement (Department of Historic Resources 2017). On July 10, 1902, the Virginia Constitutional Convention enacted the 1902 Constitution.



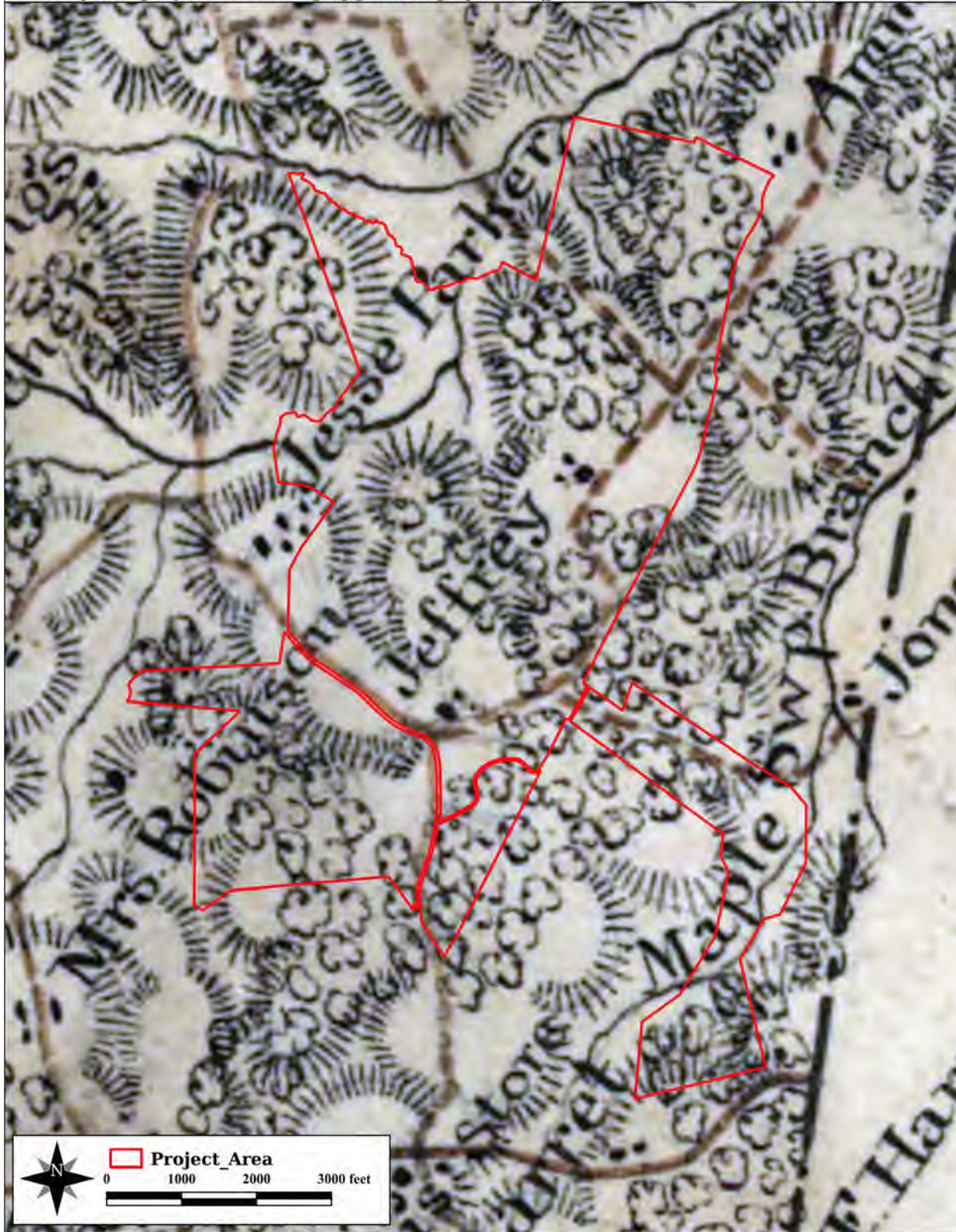


Figure 6: Approximate Project Location on the 1864 Gilmer Map of Cumberland County.





This document established poll taxes and literacy tests specifically intended to disenfranchise many African American voters. Other provisions of the Constitution included mandated formation of the Virginia State Corporation Commission, which replaced the Virginia Board of Public Works and was charged with oversight of the State's growing railroad network (Maddex 1998). In 1884 the Farmville & Powhatan Railroad was chartered and by 1890 it was connected with the Brighthope Railway of Chesterfield and provided rail service for 93 miles between Farmville and Petersburg, via Cumberland County. The railway transported the region's coal, lumber, grains, and tobacco to urban markets and provided passenger service six days a week. When first established, the company owned 7 engines and 210 cars. Initially profitable, the railway was losing money by 1894 and by 1895 was down to five locomotives (Allen 1966). The Farmville & Powhatan was sold under receivership in 1905 to the Tidewater and Western Railroad Company.

### ***World War I to World War II (1917-1945)***

The Farmville & Powhatan line remained operational under the Tidewater and Western Railroad company until 1917 when the US Government decreed that all railroads less than 100 miles long were to be taken up for the war effort. That year, the 92 mile long Farmville & Powhatan Railroad was removed and sold to the French government. With the gradual demise of canal companies following the introduction of railroads and the loss of the Farmville & Powhatan, the Southside Railroad in Farmville became Cumberland's closest link to a railway with access to urban markets to the east and west. Overland transportation routes including Routes 45 and 60, which roughly followed the alignment of the former railway became increasingly important to the County's economy.

The country suffered casualties from WWI and the Great Influenza Epidemic simultaneously. American deaths on the front in France totaled 67,813 while 548,000 deaths from influenza were reported in the U.S. within the span of just a few months; just a fraction of the 20 million who perished worldwide (St. John and St. John 1990). In the period following the war, the U.S. economy was unstable, driven by international, post-war deflation. In 1919, tobacco crops sold for 51 cents per pound, but overproduction, in America and abroad, caused prices to fall to just 22 cents a year later. In the 1920s markets stabilized ushering in a decade of sustained economic prosperity.

Improvements in farming practices, including mechanization and more effective fertilizers, caused a decrease in the number of people needed to tend crops and vast numbers of Americans moved from the countryside into cities, urbanizing the nation (Department of Historic Resources 2017). Waves of small farmers and sharecroppers migrated from the rural South to the industrialized cities of the North, seeking better opportunities. For African-Americans, this move also represented a chance for increased social equality. They did, however, often face restrictions that limited their housing to certain parts of cities. While intended to enforce racial segregation, the restrictions often resulted the formation of African-American cultural and economic centers.

As people from diverse backgrounds converged in cities, arts and industry flourished. Telephones, automobiles, air travel, jazz music, motion pictures, radio, and professional sports were introduced to American culture. The optimism of the period led to over speculation amongst investors and by the end of the 1920s the stock market was beginning to show signs of instability. The Great Stock Market Crash of 1929 ushered in a twelve year downturn in the U.S. economy known as the Great Depression. While the crash devastated investors, farmers at first seemed safe; however, the U.S. suffered an extreme drought in the summer of 1930 that forced



tobacco prices to a ten year low. Combined with the failure of banks and businesses, the country sank into an economic depression (St. John and St. John 1990).

During the period between 1929 and 1933, unemployment increased from 3.3% to 25% and gross domestic product decreased by one third (VanGiezen and Schwenk 2003). Beginning in 1933, President Franklin Roosevelt enacted regulations designed to stabilize the banking industry and created relief programs such as the Works Progress Administration (WPA), Civilian Conservation Corps (CCC), Tennessee Valley Authority (TVA), and Rural Electrification Administration (REA) to provide employment opportunities for Americans and stimulate the economy. At the time of the establishment of the REA in 1934, approximately 7.6 percent of rural Virginian farms had electricity, but in just four years that number rose to 21 percent (St. John and St. John 1990). Despite contributions from government funded programs, the economy of the region remained stagnant until the onset of World War II.

After the bombing of Pearl Harbor on December 7, 1941, America entered the Second World War. Again, citizens from Virginia served their country. The era of the World Wars saw struggles for both gender and racial equality. Black leaders pushed for equal rights in Virginia, and sometimes whites, such as *Richmond Times-Dispatch* editor Virginius Dabney, joined their cause. At times the fight for racial equality mixed with the drive for women's suffrage in the early parts of the century. In 1920, the struggle for women's suffrage came to an end in the U.S. with the ratification of the 19<sup>th</sup> Amendment, but Virginia did not ratify it until 1952. In 1948, the *Universal Declaration of Human Rights by the United Nations* added voting rights for women to international law. World War II brought much social change to the country. As African American veterans returned home from a segregated military and women who had gone to work during the war remained in the workforce the call for equality became louder (Department of Historic Resources 2017).

### ***The New Dominion (1946 to the present)***

The prosperity that followed World War II and the mechanization of farming brought about the decline of the share-cropping system that had developed after the Civil War (St. John and St. John 1990). Virginians began leaving rural homesteads and farms and moved to urban centers like Richmond and Washington, D.C. By 1955, Virginia had more urban residents than rural residents and by 1990, suburbs were the preferred place of residence. This transition from rural to urban lifestyle were aided by transportation progress including the construction of the Interstate Highway System.

On May 17, 1954 the Supreme Court ruled in *Brown v. the Board of Education* that “separate educational facilities are inherently unequal” and were a violation of the Fourteenth Amendment of the Constitution. By 1958, most Virginia counties had complied with the ruling and public school systems throughout the state were integrated, ending the need for Rosenwald schools, such as the Pine Grove School. In spite of the ruling, the Pine Grove School remained in use until 1964, and was later adapted for use as a community center (Branch 2018). At the time of this investigation, the building was in fair condition, but was no longer in use.

Agriculture remains a key component of the County's economy and Cumberland retains a largely agrarian landscape composed of grassy pastures, plowed fields, and managed timberland. Aerial photographs of the project vicinity show little change within the project area and surrounding environs between 1947 and 2018 (Figures 7 through 10).

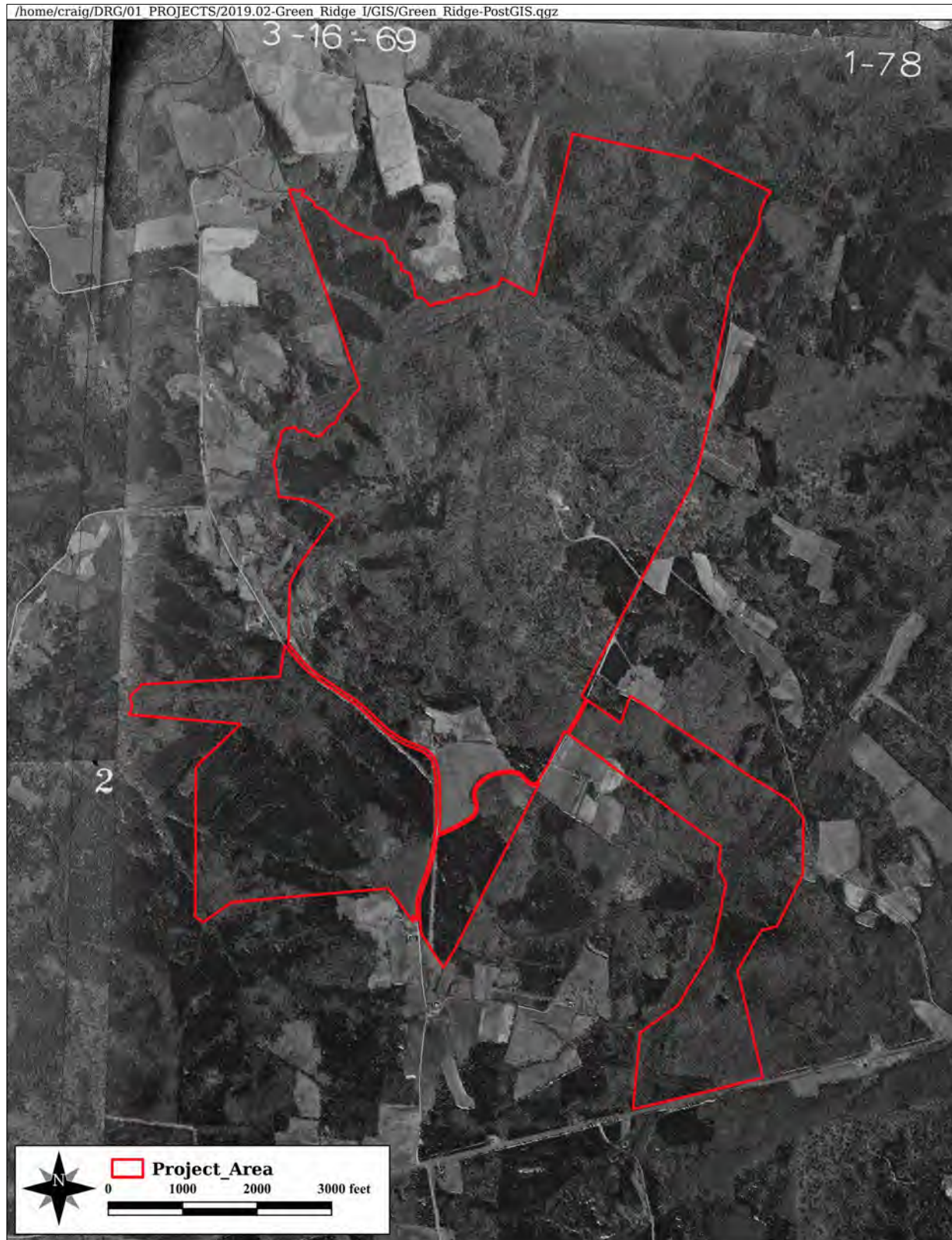


Figure 7: Project Location on the 1947 Black and White Aerial Imagery of the Project Vicinity.





Figure 8: Project Location on the 1958 Black and White Aerial Imagery of the Project Vicinity.





Figure 9: Project Location on the 1996 Color Infrared Aerial Imagery of the Project Vicinity.





Figure 10: Project Location on the 2018 Natural Color Aerial Imagery of the Project Vicinity.



## PREVIOUS INVESTIGATIONS

Information about architectural resources and archaeological sites previously recorded in the project vicinity was gathered from the Department of Historic Resource's (DHR's) online Virginia Cultural Resource Information System (V-CRIS) on June 13, 2019. *NOTE: Information included in the NRHP Eligibility column in Table 1 was updated for some architectural resources during the course of this investigation and may not be an accurate representation of current eligibility.*

V-CRIS lists one hundred eighty-eight architectural resources (Table 1) and four archaeological sites (Table 2) within five miles of the project area. None of the archaeological sites or historic structures are located within the current project area. The locations of these resources in relation to the current project area is illustrated in Figure 11.

Viewshed analysis conducted by Draper Aden Associates and described in greater detail later in this report was performed to assess the visual impact of the landfill, which at maximum capacity will rise approximately 300 feet above the current landscape. Archaeological sites and historic architectural resources from which the finished landfill is expected to be visible include a "Yes" in the "Visible" column in Tables 1 and 2.

Ten of the architectural resources located within five miles of the project area have either been determined eligible for- or are listed on- the Virginia Landmarks Register or National Register of Historic Places (Table 1, **bold** font). Twenty-one of the remaining resources were evaluated and determined ineligible for the National Register (Table 1, **gray bold** font).

Thomas Chapel United Methodist Church (DHR#024-0029) is a one-story, two-bay brick church laid in 5-course American bond located approximately 3 miles northwest of the project area. Constructed in 1847, the one-room Greek Revival church is representative of mid-nineteenth century rural churches constructed throughout Virginia and was determined eligible for the NRHP in 2001 under Criteria A and C, for its contributions to local history and possible affiliation with Thomas Jefferson's master builders and Robert E. Lee.

The one-room, frame schoolhouse on a stone foundation at the intersection of Cartersville Road (VA 45) and SR 683 (DHR#024-0089), lies approximately three miles northwest of the subject property and is thought to have been constructed around the beginning of the twentieth century. It was listed on the NRHP in 2001 under Criterion A, for its contributions to our understanding of the history of education in Cumberland County.

Goshen (DHR#024-0091) is a well-preserved example of an Antebellum Period (1830-1860) domestic complex comprised of a two-story, three-bay brick dwelling, barn, smokehouse, corncrib, shed and other outbuildings. This resource was determined eligible for inclusion on the NRHP in 1994. Goshen is located on the north side of Goshen Road, approximately four miles southwest of the project area.

DHR #024-0109 is a one-story, frame structure supported with concrete block piers, with standing seam metal roof on the northwest side of Cartersville Road (VA 45) approximately 3 miles northwest of the project. The structure was constructed circa 1915 by Cumberland County to serve as a voting precinct and continues in that function to the present day. This resource was determined eligible for the NRHP in 2001.

The Sims/Connor House (DHR#024-5021) is a one-story, three-bay frame dwelling with continuous brick foundation in English and Flemish bond, gable roof clad in standing seam, metal panels, and interior-end, corner brick chimney. The dwelling and associated smokehouse



were constructed circa 1800 and were determined eligible for the National Register in 2001. The structures are located on the south side of Cartersville Road (VA 45), approximately 3 miles northwest of the project area.

The Pine Grove Elementary School (DHR#5082) is located on the other side (western) of Pinegrove Road from the current project area. The schoolhouse was constructed circa 1917 for a cost of \$1,550.00. Known as a “Rosenwald School”, construction of the 1-story, frame structure with slate-clad, steep-hipped roof was financed by the Julius Rosenwald Fund, established by then president of Sears and Roebuck and Company for the expressed purpose of improving educational opportunities for African Americans. This resource was recommended eligible for inclusion on the National Register of Historic Places in April of 2019 under Criterion A (Education, Ethnic Heritage: African American) and Criterion C (Architecture).

Blenheim (DHR# 072-0003) is located west of Ballsville Road, on Blenheim Road (US 606) approximately 2.75 miles southeast of the project area, and was listed on the National Register of Historic Places and Virginia Landmarks Register in 1986. The earliest portions of the structure were constructed by the son of prominent Virginia surveyor Major William Mayo circa 1750, making it one of the oldest extant dwellings in Powhatan County. Subsequent additions by Mayo’s grandson and later owners in the early nineteenth century have resulted in a U-shaped structure in the vernacular cottage style. This resource includes a smokehouse.

Located approximately one and one quarter miles east of the project area, Somerset and the Brown Cemetery (DHR# 072-0040) lie southeast of the intersection of Anderson Highway (US 60) and Ballsville Road (SR 630). Somerset is a late eighteenth century domestic complex comprised of a one-and-a-half story single dwelling with steeply pitched side-gabled roof with two gabled dormers and two sets of gable-end chimneys, and contemporary barn, silo, corncrib, dairy, and family cemetery. This resource was listed on the Virginia Landmarks Register in 2006.

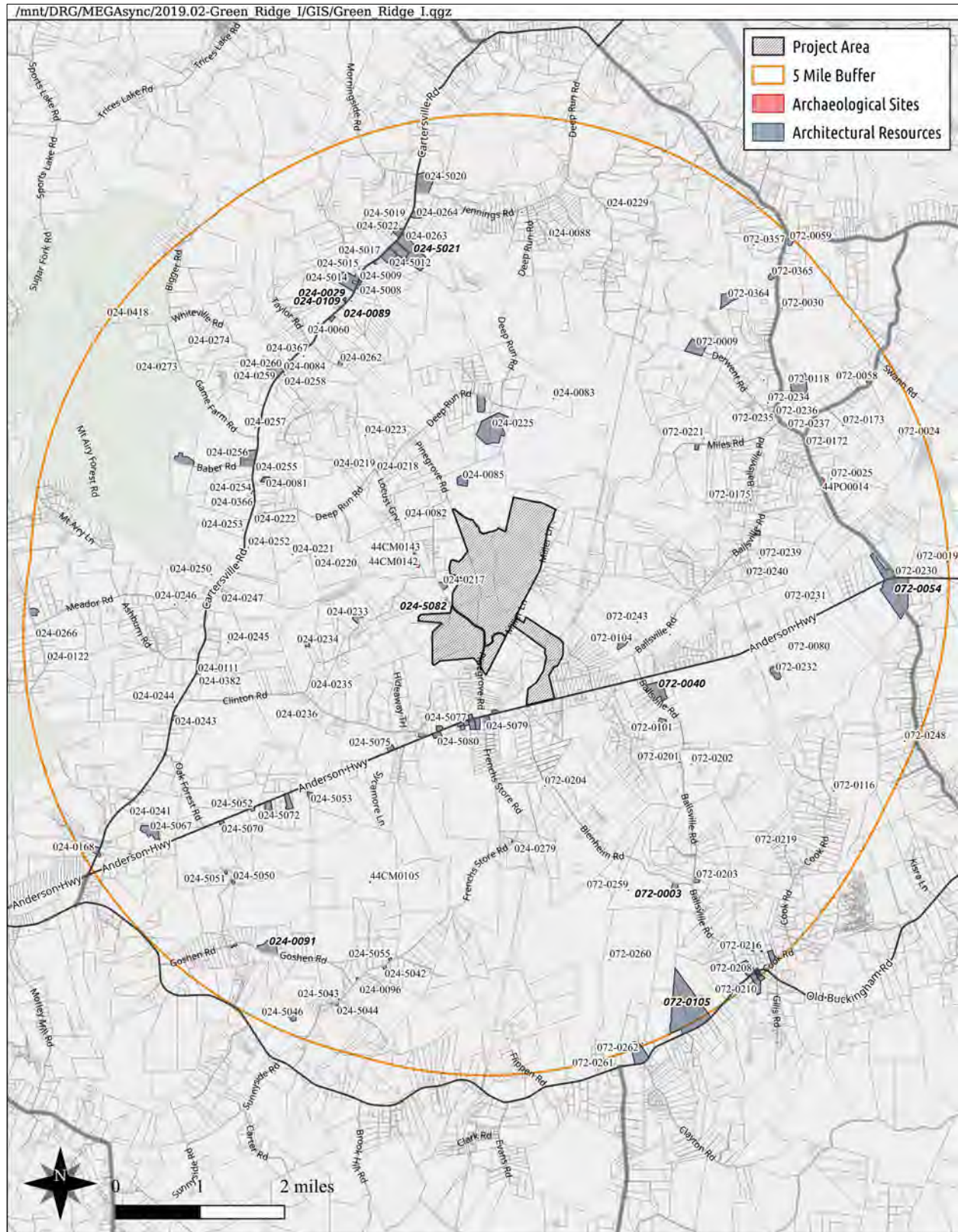
The Littleberry Mosby House/Mosby Tavern/Old Cumberland Courthouse (DHR# 072-0054) lies at the intersection of Old Tavern Road (SR 629) and Anderson Highway (US 60) approximately four and a half miles east of the project area. The resource, which includes a two-story dwelling constructed in the mid-eighteenth century, and contemporary and modern outbuildings, was used as the Cumberland County Seat prior to the formation of Powhatan County, during the latter part of the eighteenth century. This resource was listed on the Virginia Landmarks Register in 2002 and the National Register of Historic Places in 2003.

French's Tavern , Harris's Store , Indian Camp , Swan's Creek Plantation , The Coleman Place (DHR# 072-0105) is located on the north side of Old Buckingham Road approximately five miles southeast of the project area. The resource includes a well-preserved, two-and-a-half story frame tavern/dwelling constructed circa 1730 and a barn. French’s Tavern was listed on the VLR in 1988 and on the National Register in 1989.

The remaining resources are primarily comprised of nineteenth and twentieth century dwellings and domestic farmsteads concentrated along the region’s primary transportation routes, including Anderson Highway (US 60), Cartersville Road (VA 40), and Ballsville Road (SR 630). Other resources include 19th- and 20th-century churches, schools, and cemeteries; and a motel, post office, and gun club dating to the twentieth century.

Four archaeological sites have been identified within five miles of the project area. Site types include two farmsteads dating from the late nineteenth- to early twentieth century and two prehistoric lithic scatters. None of the sites have been evaluated for National Register eligibility.







**Table 1: Architectural Resources Previously Recorded within Five Miles of the Project Area**

DHR ID	Resource Name	Date	Visible	NRHP Eligibility
<b>024-0029</b>	<b>Thomas Chapel United Methodist Church</b>	<b>1847</b>	<b>No</b>	<b>Eligible</b>
024-0043	House, Route 45		N/A	Not Eligible
024-0060	House, Route 45		N/A	Not Eligible
024-0067	House, Route 45		No	Not Evaluated
024-0081	Tally Ho	1850	No	Not Evaluated
024-0082	Locust Grove		Yes	Not Evaluated
<b>024-0083</b>	<b>Oakland</b>	<b>1750</b>	<b>N/A</b>	<b>Not Eligible</b>
024-0084	Adam's Store	1911	No	Not Evaluated
024-0085	Melrose		Yes	Not Evaluated
024-0086	Wine House		No	Not Evaluated
024-0088	House, Route 607		No	Not Evaluated
<b>024-0089</b>	<b>School, Route 45</b>		<b>No</b>	<b>Eligible</b>
<b>024-0091</b>	<b>Goshen</b>	<b>1840</b>	<b>No</b>	<b>Eligible</b>
024-0096	Rock Castle	1811	No	Not Evaluated
<b>024-0109</b>	<b>Chapel, Route 45, Voting Precinct</b>	<b>ca. 1915</b>	<b>No</b>	<b>Eligible</b>
024-0111	School, Route 45	ca. 1875	No	Not Evaluated
024-0118	Bruners Store, M. H. Maxey Store, R. O. Moore Store	1880	Yes	Not Evaluated
024-0122	House, Route 624		No	Not Evaluated
024-0125	Single Dwelling, 219 Anderson Highway		No	Not Evaluated
024-0168	Single Dwelling, 57 Cumberland Road		No	Not Evaluated
024-0216	House, Route 654		No	Not Evaluated
024-0217	House, Route 654		Yes	Not Evaluated
024-0218	House, Route 616	ca. 1935	No	Not Evaluated
024-0219	House, Route 616		No	Not Evaluated
024-0220	Oakland	1847	No	Not Evaluated
024-0221	House, Parker Road (Route 648)		No	Not Evaluated
024-0222	House, Deep Run Road (Route 616)		Yes	Not Evaluated
024-0223	Mayo House		No	Not Evaluated
024-0224	House, Route 616	1930	No	Not Evaluated
024-0225	House, Route 616	1880	Yes	Not Evaluated
024-0229	House, Route 687		No	Not Evaluated
024-0233	House, Brown Road (Route 647)	ca. 1885	No	Not Evaluated
024-0234	House, Route 647, Winfield Farm		No	Not Evaluated
024-0235	House, Route 647		No	Not Evaluated
024-0236	House, Route 601		No	Not Evaluated
024-0237	Single Dwelling, 302 Anderson Highway		No	Not Evaluated
024-0238	Rising Zion Baptist Church		Yes	Not Evaluated
024-0239	Single Dwelling, 217 Anderson Highway		No	Not Evaluated
024-0240	Clinton Manor House, 199 Anderson Highway		Yes	Not Evaluated
024-0241	House, Route 45 N	ca. 1875	No	Not Evaluated
024-0242	Bethlehem Baptist Church		No	Not Evaluated
024-0243	House, Route 45 (Cartersville Road)		No	Not Evaluated
024-0244	House, Route 45 (Cartersville Road)		No	Not Evaluated
024-0245	House, Rt 45		No	Not Evaluated
024-0246	House, Rt 45		No	Not Evaluated
024-0247	Oak Grove Baptist Church	1909	No	Not Evaluated
024-0248	Ashby General Store, Stonenell and Holland Store		No	Not Evaluated
024-0249	House, Rt 45		No	Not Evaluated
024-0250	House, Route 45	ca. 1885	No	Not Evaluated
024-0251	House, Route 45		No	Not Evaluated
024-0252	Greenfield Farm		Yes	Not Evaluated
024-0253	Farm, Route 45	ca. 1885	No	Not Evaluated
024-0254	House, Route 45		No	Not Evaluated
024-0255	House, Route 45		No	Not Evaluated
024-0256	House, Route 45		No	Not Evaluated
024-0257	House, Route 45		No	Not Evaluated

DHR ID	Resource Name	Date	Visible	NRHP Eligibility
024-0258	House, Route 45		No	Not Evaluated
024-0259	House, Route 45		No	Not Evaluated
024-0260	Barn, Route 615		No	Not Evaluated
024-0261	House, Route 45		No	Not Evaluated
024-0262	House, Route 614		No	Not Evaluated
024-0263	Mt. Horeb Church		N/A	Not Eligible
024-0264	House, Route 45		N/A	Not Eligible
024-0265	House, Route 626		No	Not Evaluated
024-0266	Cemetery, Route 624	ca. 1914	No	Not Evaluated
024-0271	House, Route 624	ca. 1846	No	Not Evaluated
024-0272	House, Rt 625	1880	No	Not Evaluated
024-0273	House, Rt 663	1880	No	Not Evaluated
024-0274	Farm, Rt 663		No	Not Evaluated
024-0275	Mullein School, Mullins Bottom, Rosenwald School, Turkey Cock School	1921	No	Not Evaluated
024-0276	House, Route 697		No	Not Evaluated
024-0278	House, Route 654		No	Not Evaluated
024-0279	House, Route 654	1900	No	Not Evaluated
024-0366	Barn, Route 45		No	Not Evaluated
024-0367	Mount Calvary Baptist Church		No	Not Evaluated
024-0368	House, Route 45		N/A	Not Eligible
024-0369	House, Route 607		No	Not Evaluated
024-0382	House, Route 45		No	Not Evaluated
024-0383	House, Route 45		No	Not Evaluated
024-0418	Cemetery, Route 615	Unknown	No	Not Evaluated
024-5007	House, Route 45		N/A	Not Eligible
024-5008	House, Route 45		N/A	Not Eligible
024-5009	House, Route 45		N/A	Not Eligible
024-5010	House, Route 45		N/A	Not Eligible
024-5011	House, Route 45		N/A	Not Eligible
024-5012	House, Route 45		N/A	Not Eligible
024-5013	Smook Farm		N/A	Not Eligible
024-5014	Building, Route 45		N/A	Not Eligible
024-5015	House, Route 45		N/A	Not Eligible
024-5016	Cemetery, Route 45		N/A	Not Eligible
024-5017	House, Route 45		N/A	Not Eligible
024-5018	House, Route 45		N/A	Not Eligible
024-5019	Catfish's General Store and Sporting Goods		N/A	Not Eligible
024-5020	Cochran House and Cemetery		N/A	Not Eligible
024-5021	Conner House, Sims House		No	Eligible
024-5022	House, Route 45		N/A	Not Eligible
024-5042	House, Route 654		No	Not Evaluated
024-5043	Barn, Route 654		No	Not Evaluated
024-5044	House, Route 654		No	Not Evaluated
024-5045	House, Route 654		No	Not Evaluated
024-5046	House, Route 654		No	Not Evaluated
024-5047	House, Route 645		No	Not Evaluated
024-5048	House, 164 Goshen Road		No	Not Evaluated
024-5049	House, Route 645		No	Not Evaluated
024-5050	Barn, Route 646		No	Not Evaluated
024-5051	Dam, Route 646	0	No	Not Evaluated
024-5052	60 Motel, Motel, 687 Anderson Highway	ca. 1955	No	Not Evaluated
024-5053	House, 591 Anderson Highway	ca. 1955	No	Not Evaluated
024-5054	House, Route 654		No	Not Evaluated
024-5055	House, Route 654		No	Not Evaluated
024-5056	House, Route 654		No	Not Evaluated
024-5067	Misty Hill, Single Dwelling, 902 Anderson Highway		No	Not Evaluated



DHR ID	Resource Name	Date	Visible	NRHP Eligibility
024-5068	Single Dwelling, 44 Cartersville Road	ca. 1935	No	Not Evaluated
024-5069	Single Dwelling, 968 Anderson Highway	ca. 1955	No	Not Evaluated
024-5070	Single Dwelling, 759 Anderson Highway	ca. 1945	No	Not Evaluated
024-5072	Single Dwelling, 663 Anderson Highway	ca. 1965	No	Not Evaluated
024-5073	Single Dwelling, 613 Anderson Highway		No	Not Evaluated
024-5075	Single Dwelling, 378 Anderson Highway	ca. 1935	No	Not Evaluated
024-5076	Single Dwelling, 152 Anderson Highway	ca. 1925	No	Not Evaluated
024-5077	Single Dwelling, 209 Anderson Highway	ca. 1935	No	Not Evaluated
024-5078	Single Dwelling, Intersection, Route 60 and French's Store Road		Yes	Not Evaluated
024-5079	Single Dwelling, 169 Anderson Highway		Yes	Not Evaluated
024-5080	Single Dwelling, 275 Anderson Highway	ca. 1935	No	Not Evaluated
<b>024-5082</b>	<b>Pine Grove Community Center, Pine Grove Elementary School, Pine Grove School, Rosenwald School</b>	<b>ca. 1917</b>	<b>No</b>	<b>Eligible</b>
024-5120	House, 79 Pinegrove Road		Yes	Not Evaluated
<b>072-0003</b>	<b>Blenheim</b>		<b>No</b>	<b>Listed: NRHP, VLR</b>
072-0006	Cox Place, Gibraltar	1802	No	Not Evaluated
072-0009	Derwent, House, 6000 Derwent Road, Robert E. Lee House	ca. 1841	No	Not Evaluated
072-0019	Southam Glebe, The Glebe	ca. 1749	No	Not Evaluated
<b>072-0024</b>	<b>Laurel Springs</b>		<b>No</b>	<b>Not Eligible</b>
072-0025	Lethe (Land of Sleep)		No	Not Evaluated
072-0030	Muddy Creek Church, Muddy Creek Church and School Property		No	Not Evaluated
<b>072-0040</b>	<b>Brown Family Cemetery, Somerset</b>		<b>No</b>	<b>Listed: VLR</b>
<b>072-0054</b>	<b>Littleberry Mosby House, Mosby Tavern, Old Cumberland Courthouse</b>		<b>No</b>	<b>Listed: NRHP, VLR</b>
072-0058	Farm, Route 715		No	Not Evaluated
072-0059	Pine Tree Farm		No	Not Evaluated
072-0080	House, 5809 Route 60, House, Route 60		No	Not Evaluated
072-0101	Edgemont, McLaurine House, Mosby Birthplace	1764	No	Not Evaluated
072-0104	Brown Farm, Frazier House, Windsor House		Yes	Not Evaluated
<b>072-0105</b>	<b>French's Tavern, Harris's Store, Indian Camp, Swan's Creek Plantation, The Coleman Place</b>	<b>1730</b>	<b>No</b>	<b>Listed: NRHP, VLR</b>
072-0116	Oakland		No	Not Evaluated
072-0118	Poland Farm	ca. 1851	No	Not Evaluated
072-0172	Trenholm School		No	Not Evaluated
072-0173	House, 3168 Route 715		No	Not Evaluated
072-0175	House, 2891 Route 630		No	Not Evaluated
072-0201	Barns, 2101 Route 630		No	Not Evaluated
072-0202	Cemetery, 2120 Route 630		No	Not Evaluated
072-0203	House, 1744 Route 630		No	Not Evaluated
072-0204	Log Shed, Route 606		No	Not Evaluated
072-0205	House, 1660 Route 630		Yes	Not Evaluated
072-0206	House, Route 630		No	Not Evaluated
072-0207	House, 1501 Route 630	1905	No	Not Evaluated
072-0208	House, 1500-1502 Route 630		No	Not Evaluated
072-0209	House, 5926 Route 13		No	Not Evaluated
072-0210	House, 5927 Route 13		No	Not Evaluated
072-0211	Odd Fellows Hall		No	Not Evaluated
072-0212	House, 5913 Route 13		No	Not Evaluated
072-0213	House, 5910 Route 13		No	Not Evaluated
072-0214	Shadow Oak		No	Not Evaluated
072-0215	House, 1509 Route 636		No	Not Evaluated
072-0216	House, Route 636	ca. 1925	No	Not Evaluated
072-0217	House & Tobacco Barn, Route 636		No	Not Evaluated
072-0219	House, Route 650		No	Not Evaluated
072-0221	Cloverdale		No	Not Evaluated
072-0230	Brown's Service Station	1936	No	Not Evaluated
072-0231	House, 5740 Route 60		No	Not Evaluated



DHR ID	Resource Name	Date	Visible	NRHP Eligibility
072-0232	House, 5921 Route 60	1918	No	Not Evaluated
072-0233	House, 3189 Route 629	1901	No	Not Evaluated
072-0234	House, 3181 Route 629		No	Not Evaluated
072-0235	House, 3167 Route 629		No	Not Evaluated
072-0236	Trenholm Post Office		No	Not Evaluated
072-0237	House, 3130 Route 629		No	Not Evaluated
072-0238	House, 2796 Route 630		No	Not Evaluated
072-0239	Magnolia Center for Special Equestrians		No	Not Evaluated
072-0240	House, Route 630		No	Not Evaluated
072-0241	Store, Route 630		No	Not Evaluated
072-0243	Gun Club		No	Not Evaluated
072-0248	House, 2171 Route 629		No	Not Evaluated
072-0259	Barn, 6177 Route 606		No	Not Evaluated
072-0260	Clayton House, Cornercrib, and Barn		No	Not Evaluated
072-0261	House & Barn, 6392 Route 13		No	Not Evaluated
072-0262	Szenasy, Ema House, Whitlock, R.B. House	1912	No	Not Evaluated
072-0263	Barn, Route 631 and Route 13		No	Not Evaluated
072-0273	House, 5912 Route 646		No	Not Evaluated
072-0357	Old Parker Place (Piney Grove)		No	Not Evaluated
072-0363	House, 3261 Route 629		No	Not Evaluated
072-0364	Cemetery, Route 629	1883	No	Not Evaluated
072-0365	Hatcher Dairy		No	Not Evaluated
072-0383	Coopedge House		No	Not Evaluated

**Table 2: Archaeological Sites Previously Recorded within Five Miles of the Project Area**

DHR ID	Site Type	Temporal Affiliation	Visible	Eligibility
44CM0105	Farmstead	20th Century: 1st half (1900 - 1949)	No	Not Evaluated
44CM0142	Artifact scatter	Early Archaic Period (8500 - 6501 B.C.E), Late Woodland (1000 - 1606)	No	Not Evaluated
44CM0143	Farmstead	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)	No	Not Evaluated
44PO0014	Artifact Scatter	Prehistoric/Unknown (15000 B.C.E. - 1606 A.D.)	No	Not Evaluated

## EXPECTED RESULTS

For the purposes of this project, site probability was defined based on evidence of prehistoric and historic cultural activity in the project vicinity and local environmental conditions. Previously identified prehistoric archaeological sites in the project vicinity indicate transient utilization of the landscape throughout the prehistoric period. Based on the results of previous investigation, the project area is expected to have a low to moderate probability to contain lithic workshops, lithic scatters, and other exploitative sites, with the highest probability along ridges that offer good visibility into drainages.

Regional historic settlement models suggest historic archaeological sites are likely to be located on prominent landforms, such as ridges, knolls, and knobs, with reliable access to established transportation networks. The 1864 Gilmer Map of Cumberland County (see Figure 6) shows at least two domestic complexes within the project area and three additional complexes immediately adjacent to the project boundary. Historic resources are expected in these general locations as are unidentified resources in similar environmental settings.



## **SURVEY FINDINGS**

### ***Architectural Investigation***

#### **Viewshed Analysis**

The finished landfill will include a waste management area that extends approximately 300 feet above the current highest elevation within the disposal area (Figure 12). Viewshed analysis was performed by Mike Futrell, Matt Burnette, Gordon Dively, and Lynn Klappich of Draper Aden Associates (DAA) to determine if the finished landfill will be visible from recorded archaeological sites and architectural resources within five miles of the Green Ridge property that have been listed on- or determined eligible for- the National Register. Additional analysis was completed to assess visibility from resources whose eligibility is yet to be determined. The report of DAA's findings are summarized below and included as Appendix 2.

A digital surface model (ground surface including current vegetation) was created for the area within five miles of the property center using point clouds from the 2016 USGS Chesapeake Bay VA QL2 LiDAR Project, obtained from the Virginia Geographic Information Network (VGIN). Analysis was completed using the ArcGIS Viewshed Toolbox. The resultant model approximated surfaces using a cell size of 10 feet and accounted for current vegetation conditions by using the MAXIMUM cell assignment type (i.e. highest elevation within the cell).

Construction plans call for a finished elevation 230-330 feet above the current landscape. Thus, a viewpoint with an elevation of 695 a.m.s.l. was used to generate a visible/not visible derivative layer from the digital surface model. Because the viewshed analysis was performed using the digital surface model, each recorded architectural resource- and archaeological site- location was manually reviewed using the most recent aerial imagery to determine if the proposed Green Ridge landfill would be visible at the ground level, as opposed to the tops of trees.

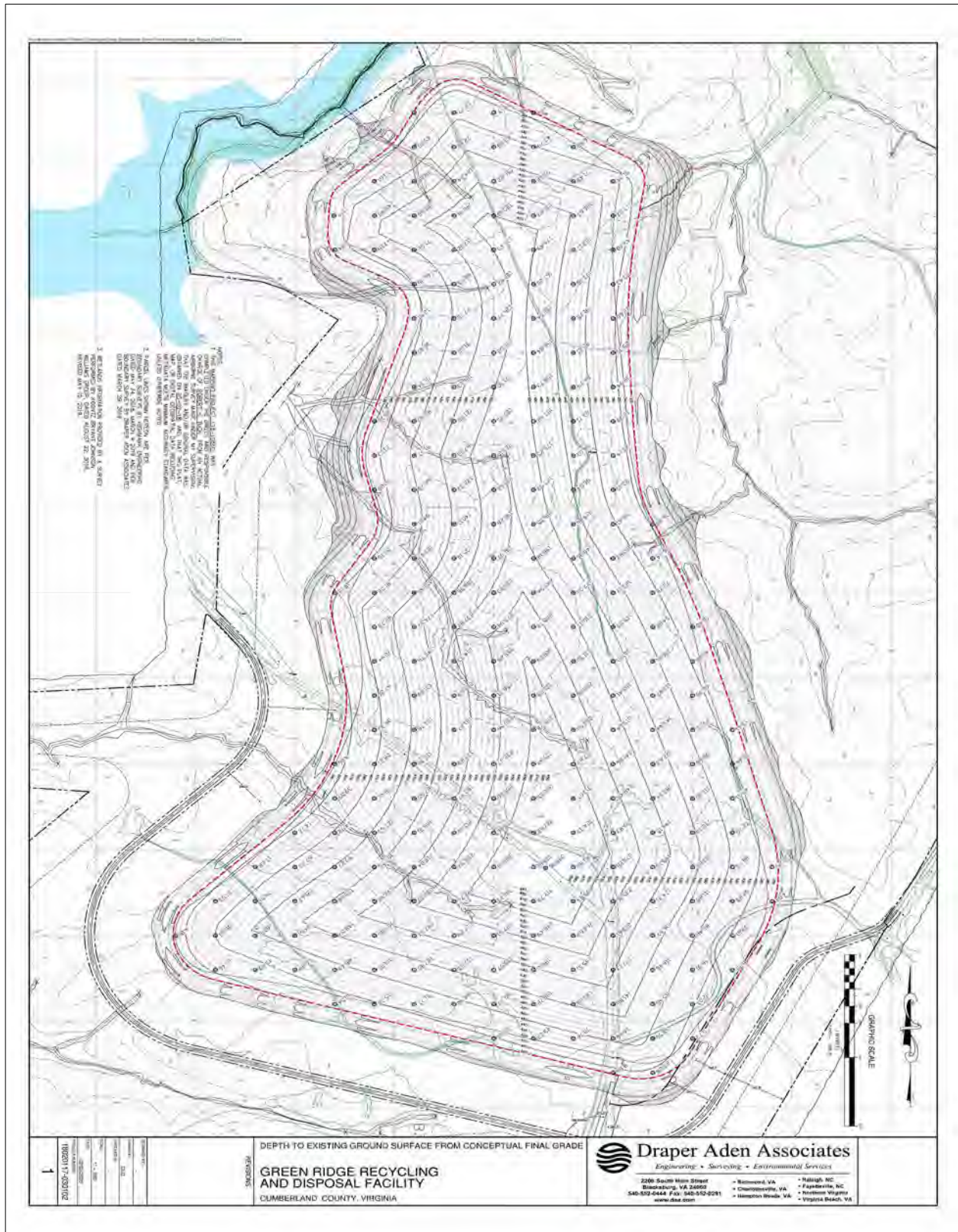
Figure 13 shows the results of the visibility analysis based on current ground cover and assumes no changes to the surface vegetation outside of the waste management area. Areas shaded in gray will not have a direct line of sight to the finished waste management area. The results of the survey indicate all recorded resources from which the finished landfill will be visible are located within one mile of the project area. As expected, visibility for resources within one mile is dependent upon existing vegetation conditions specific to each location.

#### **Map-Based Architectural Survey**

The Virginia Department of Historic Resources defines a historic resource as a standing structure or archaeological site greater than fifty years of age. Although no historic standing structures were identified within the project area, historic maps and aerial photographs indicate numerous structures 50 years old or older located in the project vicinity, only some of which have been previously recorded. While these structures are located outside of the project area, proposed construction plans call for the creation of a waste disposal area that will rise 300 feet above the current elevation and thus, this undertaking's Area of Potential Effect (APE) extends beyond the property boundary. In consideration of the results of the visibility analysis; which suggests visibility is limited to resources within one mile of the project, a one mile boundary was used in this historical architecture survey.

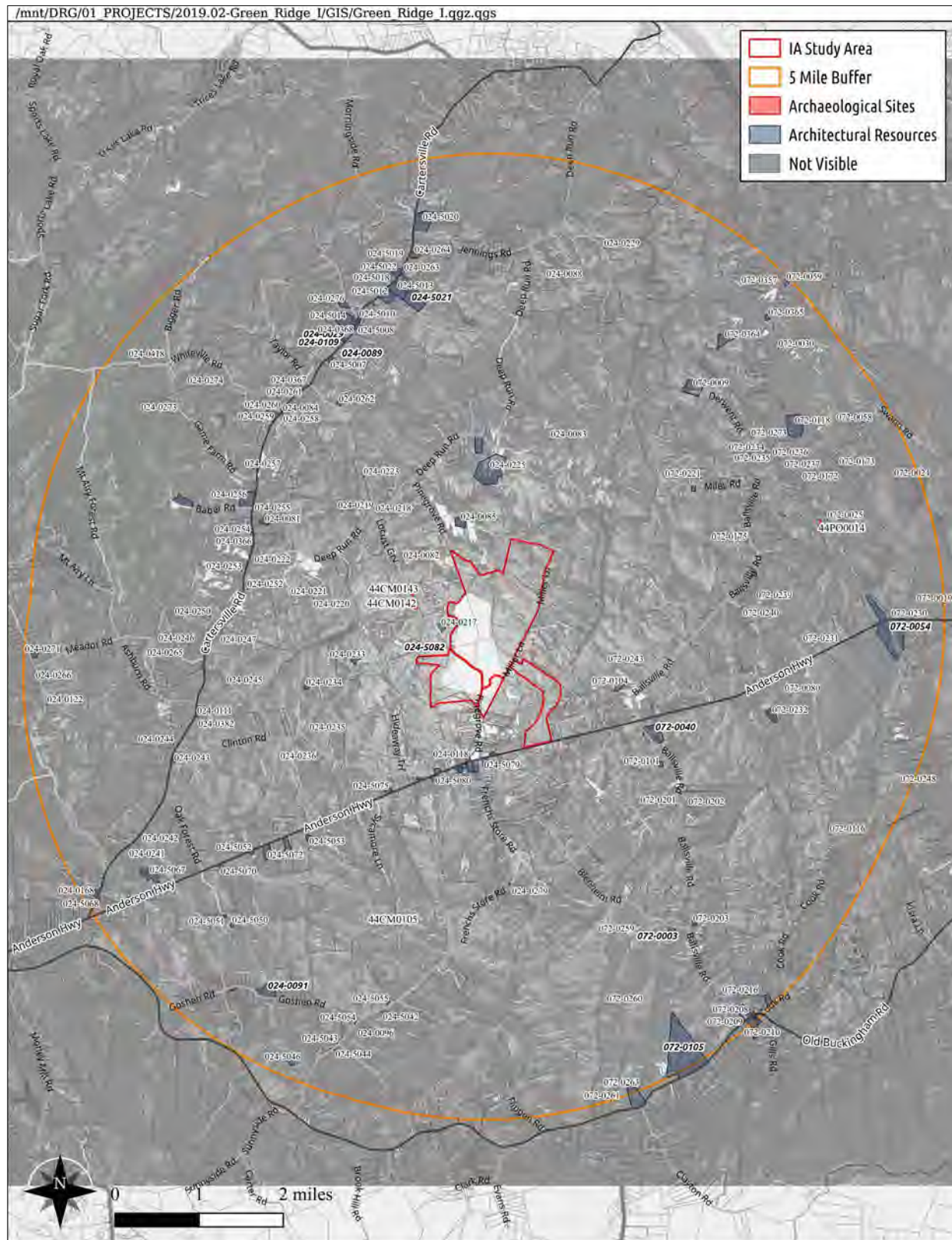
Historic structure locations were identified using the 1969 Whiteville and Trenholm USGS 7.5 minute quadrangles. Structures were identified as "dwellings" or "outbuildings" based on the USGS symbology and their locations were checked against the most recent aerial imagery from the Virginia Geographic Information Network (VGIN) to determine if they were still standing.





**Figure 12: Elevation Differences Between the Current Landscape and the Waste Disposal Area at Maximum Capacity.**





Additional information about the structure type, property addresses, and construction dates were obtained from the Cumberland County and Powhatan County Geographic Information Systems. Where no construction dates were provided, approximate construction dates were obtained from historic aerial imagery. The results of the viewshed analysis were then used to determine if the finished landfill will be visible from the historic standing structures. The results of this analysis are provided in Table 3 and the resource locations in relation to the project area are illustrated in Figure 14.

A total of eighty nine structures were identified within one mile of the project area using the 1969 USGS quadrangles. Structure types included one school, one church, three commercial buildings, forty-eight dwellings, and thirty-six outbuildings. Twenty-five of these structures are no longer standing and the condition of eight additional structures is unknown.

Thirty-four of the structures identified within one mile of the project area were previously recorded, including one resource recommended eligible for the National Register (Pine Grove School / DHR# 024-5082) and six structures that are no longer standing.

DAA's viewshed analysis indicates the finished landfill will be visible from ten historic standing structures, all of which have been recorded with DHR. Structures from which the landfill will be visible include five dwellings, four outbuildings, and one commercial building, recorded, but not evaluated for National Register eligibility.

**Table 3: Architectural Resources in the Project Vicinity**

DHR ID	Resource Name	Visible	Date
024-0082	(Locust Grove) Dwelling, 109 Locust Grove	No	1780
024-0082	Outbuilding	No	
<b>024-0082</b>	<b>Outbuilding</b>	<b>Yes</b>	
<b>024-0085</b>	<b>(Melrose) Dwelling, 530 Pinegrove Road</b>	<b>Yes</b>	<b>1868</b>
<b>024-0085</b>	<b>Dwelling, 530 Pinegrove Road</b>	<b>Yes</b>	<b>pre 1947</b>
024-0085	Outbuilding	No	
024-0085	Outbuilding	No	
<b>024-0118</b>	<b>Bruners Store 196 Anderson Highway</b>	<b>Yes</b>	<b>pre 1947</b>
024-0125	Dwelling, 219 Anderson Highway	No	1790
024-0216	Dwelling, No Longer Standing	N/A	
<b>024-0225</b>	<b>Outbuilding</b>	<b>Yes</b>	
024-0225	Outbuilding	No	
<b>024-0225</b>	<b>Dwelling, No Longer Standing</b>	<b>N/A</b>	
024-0233	Dwelling, Vacant	No	pre 1947
024-0233	Outbuilding	No	
024-0237	Dwelling, 27 Clinton Road	No	pre 1947
<b>024-0238</b>	<b>Rising Zion Baptist Church, 262 Anderson Highway</b>	<b>N/A</b>	<b>2002</b>
024-0239	Dwelling, 217 Anderson Highway	No	1820
<b>024-0240</b>	<b>Clinton Manor, 199 Anderson Highway</b>	<b>Yes</b>	<b>pre 1947</b>
024-0278	Dwelling, No Longer Standing	N/A	
024-5076	Outbuilding	No	
024-5076	Outbuilding	No	
024-5077	Dwelling, 209 Anderson Highway	No	1942



**Table 3: Architectural Resources in the Project Vicinity**

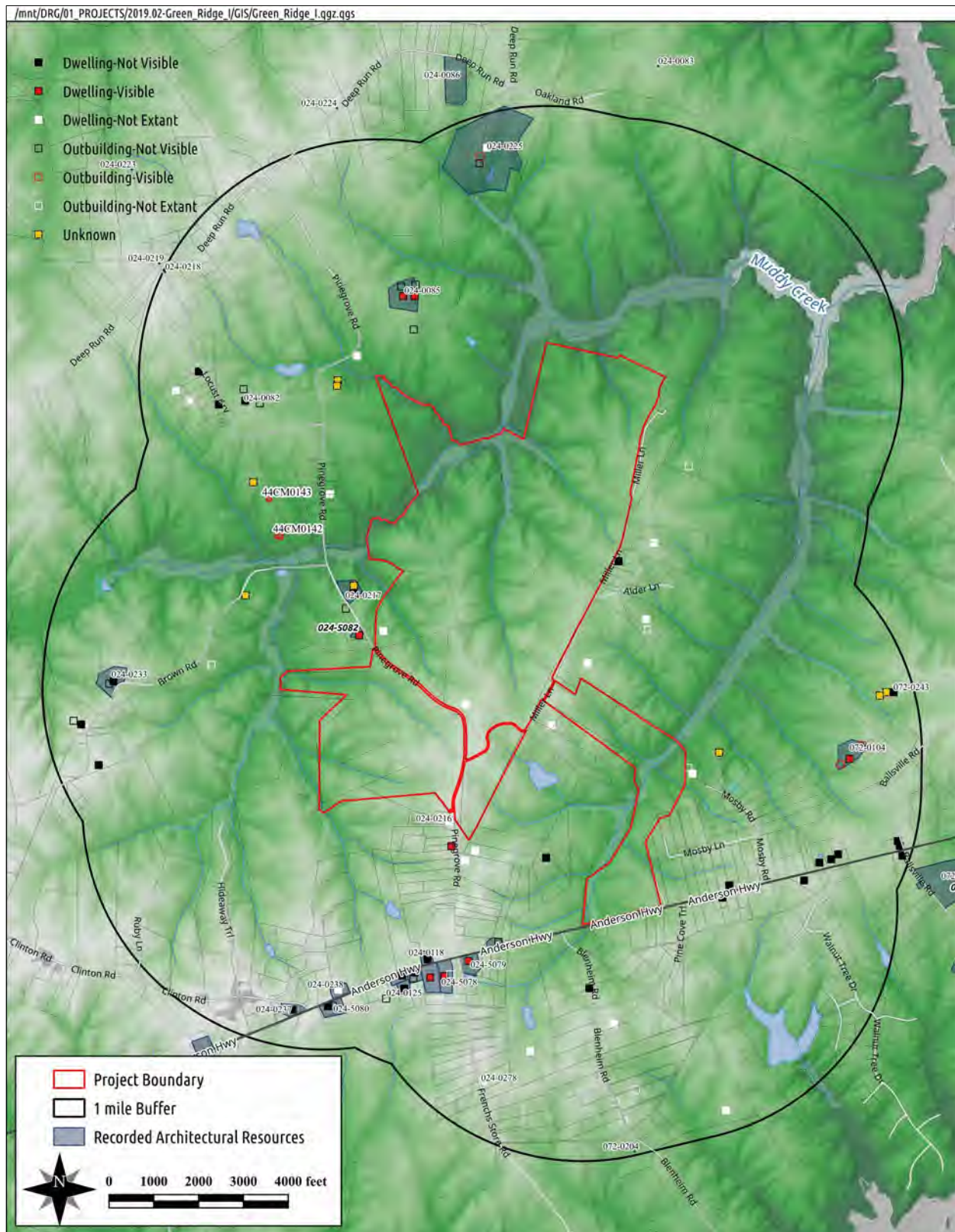
DHR ID	Resource Name	Visible	Date
024-5077	Outbuilding	No	
<b>024-5078</b>	<b>Outbuilding</b>	<b>Yes</b>	
024-5078	Outbuilding, No Longer Standing	N/A	
<b>024-5079</b>	<b>Dwelling, 169 Anderson Highway</b>	<b>Yes</b>	<b>pre 1947</b>
024-5080	Dwelling, 275 Anderson Highway	No	1948
024-5080	Outbuilding	No	
024-5082	Pine Grove Rosenwald School, 267 Pinegrove Road	No	ca. 1915
<b>024-5210</b>	<b>Dwelling, 79 Pinegrove Road</b>	<b>Yes</b>	<b>1960</b>
072-0104	Dwelling, 2423 Ballsville Road	No	1840
072-0104	Outbuilding	No	
<b>072-0104</b>	<b>Outbuilding</b>	<b>Yes</b>	
072-0243	Dwelling, 3210 Trenholm Road	No	1954
	Commercial Building, 2405 Ballsville Road	No	pre 1958
	Commercial Building, 6271 Anderson Highway	No	1960
	Commercial Building, 6471 Anderson Highway	No	ca. 1975
	Dwelling	No	pre 1947
	Dwelling	No	pre 1947
	Dwelling, 110 Locust Grove	No	post 1958
	Dwelling, 171 Brown Road	No	1940
	Dwelling, 2405 Ballsville Road	No	1964
	Dwelling, 296 Pinegrove Road	No	1880
	Dwelling, 6340 Anderson Highway	No	1967
	Dwelling, 6350 Anderson Highway	No	1968
	Dwelling, 6360 Anderson Highway	No	1964
	Dwelling, 6371 Anderson Highway	No	1964
	Dwelling, 6454 Anderson Highway	No	1960
	Dwelling, 6631 Blenheim Road	No	1959
	Dwelling, 80 Locust Grove	No	1969
	Dwelling, Vacant	No	post 1958
	Outbuilding	No	
	Outbuilding	No	
	Outbuilding	No	
	Outbuilding	No	
	Dwelling, No Longer Standing	N/A	
	Dwelling, No Longer Standing	N/A	
	Dwelling, No Longer Standing	N/A	
	Dwelling, No Longer Standing	N/A	
	Dwelling, No Longer Standing	N/A	
	Dwelling, No Longer Standing	N/A	
	Dwelling, No Longer Standing	N/A	
	Dwelling, No Longer Standing	N/A	



**Table 3: Architectural Resources in the Project Vicinity**

<b>DHR ID</b>	<b>Resource Name</b>	<b>Visible</b>	<b>Date</b>
	Dwelling, No Longer Standing	N/A	
	Dwelling, No Longer Standing	N/A	
	Dwelling, No Longer Standing	N/A	
	Dwelling, No Longer Standing	N/A	
	Dwelling, No Longer Standing	N/A	
	Dwelling, No Longer Standing	N/A	
	Dwelling, No Longer Standing	No	
	Dwelling, No Longer Standing	N/A	
	Outbuilding, No Longer Standing	N/A	
	Outbuilding, No Longer Standing	N/A	
	Outbuilding, No Longer Standing	N/A	
	Outbuilding, No Longer Standing	N/A	
	Outbuilding, No Longer Standing	N/A	
	Outbuilding, No Longer Standing	N/A	
	Outbuilding, No Longer Standing	N/A	
	Outbuilding, No Longer Standing	N/A	
	Outbuilding, No Longer Standing	N/A	
	Outbuilding, No Longer Standing	N/A	
	Outbuilding, Condition Unknown	N/A	
	Outbuilding, Condition Unknown	N/A	
	Outbuilding, Condition Unknown	N/A	
	Outbuilding, Condition Unknown	N/A	
	Outbuilding, Condition Unknown	N/A	
	Outbuilding, Condition Unknown	N/A	
	Outbuilding, Condition Unknown	N/A	
	Outbuilding, Condition Unknown	N/A	





**Figure 14: Historic Structure Locations within One Mile of the Project Area classified by Structure Type and Visibility of the Finished Landfill.**



## UPDATE: Unevaluated Structures

*In its April 30, 2020 review of the Phase I Cultural Resources Investigation of the Green Ridge property, DHR #2019-0180, dated February 2020, DHR identified 14 sites for additional Phase I analysis. The additional analysis was completed in September of 2020 and included visual observations (balloon survey), ArcGIS viewshed analysis using Lidar point clouds, and documentation of the current condition of the historic structures. The results of the balloon survey and Lidar desktop analysis are presented in “Viewshed Analysis DHR – Phase I Response, prepared by Draper Aden Associates on September 29, 2020 and are included as Appendix 3 to this report. Descriptions of the current resources conditions, completed by Lyle Browning, are presented in their entirety in the following text.*

DHR requested that a total of 14 structures be updated as to their current status (Figure 15). This report is the result of a site visit, talks with owners/occupants, and photography of extant structures.

The table below has relevant information categories for the buildings hereinafter described in more detail.

In addition, this report has an accompanying LIDAR based viewshed analysis completed by Draper Aden Associates (DAA). Their method was to assume a 5.5’ height above existing ground level at the façade of the structure facing the presumptive highest point of the proposed landfill. That was based upon the eye level of an average person of average height. Straight line projections were made excluding trees in the immediate yard. Note that the photos taken facing from the properties towards the landfill were in all cases taken from the nearest roadway rather than the actual structure itself. The photos in the DAA report all have a yellow dot and a call-out showing the location from which the photo was taken. The sight lines were from the structures to the highest point of the proposed landfill. The black dot on the lower right graphic on each page represents the highest point on the landfill. Where it is above the green, the landfill will be visible and where it is below the green, it will not be visible from the relevant structure based upon current conditions and the current height of the trees as identified in the LIDAR data.

**Table 4: Architectural Resources in the Project Vicinity**

Site #	Name	DHR #	Eligibility	Date	Visible
Site 1	Locust Grove	024-0082	Yes	1780	No
Site 2	House	072-0205	No	1915	No
Site 3	Dwelling	024-5079	No	20th Century	Yes
Site 4	Dwelling	024-5078	No	Early 19th	Yes
Site 5	Bruners Store	024-0118	No	20th Century	No
Site 6	Clinton Manor	024-0240	Yes	Late 19th-Early 20th	Yes
Site 7	Brown Farm	072-0104	Yes	18th Century	No
Site 8	Rising Zion Baptist Church	024-0238	No	2002	No
Site 9	Pine Grove School, Rosenwald	024-5082	Yes	20th Century	No
Site 10	House	024-0222	No	Late 19th-Early 20th	No
Site 11	House	024-0217	No	1880	No
Site 12	Melrose	024-0085	Yes	1868	Yes
Site 13	House	024-0225	No	2018	No
Site 14	Greenfield Farm	024-0252	No	1920	Yes



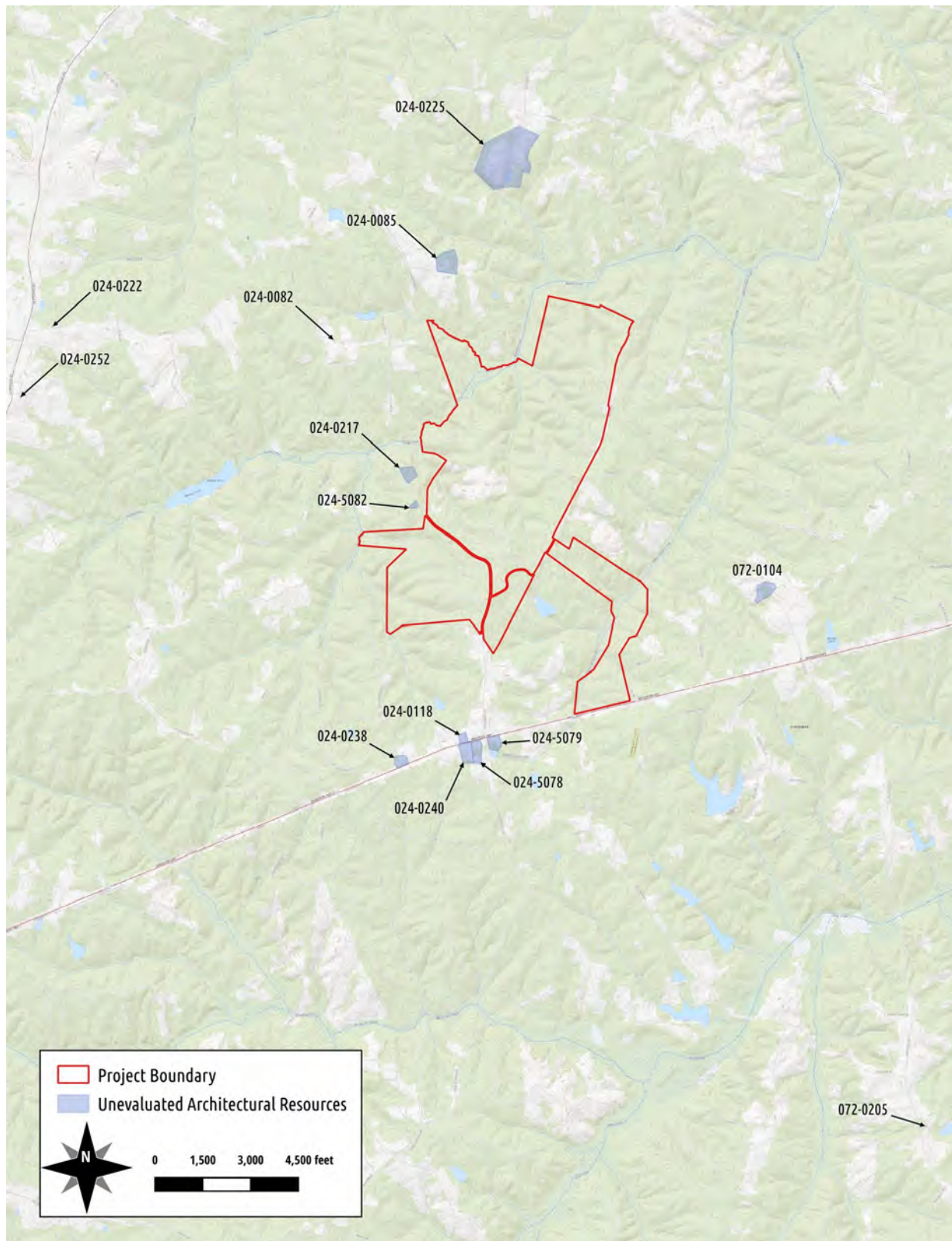


Figure 15: Locust Grove (DHR 024-0082) Current Resource Conditions on USGSTopo Basemap.

Of the fourteen structures investigated, the completed landfill at its maximum thirty-year height would potentially be visible from five structures, listed below. Of the fourteen structures, the Pine Grove School is on the NRHP and four other properties were recommended as potentially eligible (Site 1, Locust Grove 24-82; Site 6, Clinton Manor 24-240; Site 7, Brown Farm 72-104; Site 12, Melrose 24-85). Of those, two, Clinton Manor and Melrose, were in the viewshed of the landfill. Mitigation is not recommended for those eligible structures not visible from the completed landfill.

*Site 1, DHR 024-0082, Locust Grove (Figure 16)*

**Description:** This 1.5 story central passage house faces south and is currently cross shaped although the south wing is set slightly off of center. Two arms of the cross were added after 1940 by the parents of the current owner. The original structure was a central passage with flanking rooms and Flemish bond exterior end chimneys. The two wings that were added close off the central passage.

**Site Description:** The house sits in a lawn with boxwood lined paths, a large Catalpa tree and a very large Cedar, possibly a state record tree. The boxwood paths have an S-curve from the house to the approach road. Mature hardwoods surround the house.

The owner stated that on the east chimney is a stone dated 1780. This is a stone founded Flemish Bond chimney with some glazed headers. Flanking the chimney is a shed addition to the south and a bulkhead entrance to the north.

The west chimney is a stone founded Flemish Bond chimney with some glazed headers.

There is a full basement beneath the eastern half of the house. The western half is set upon stone piers.

One interpretation would be that one half is an addition to the other.

The owner stated that the house foundation stones came from a nearby creek and that the cut marks could still be observed there. The rocks were split from bedrock and roughly squared for use.

The visible exterior siding is plain weatherboard held in place by wire nails. The slate roof is a 20th century replacement of an earlier asphalt shingle roof.

The north and south wings are additions from the first half of the 20th century done by the owner's parents upon purchase in about 1940. Both have stone wall foundations.

Several outbuildings are present, all constructed after 1940. These include a barn, smokehouse, spring house, chicken house and other utilitarian structures.

**Surveyor Assessment:** Although the site has had additions, the original siding appears to be beneath the more modern plain clapboard. The chimneys are excellent examples of Flemish bond brickwork characteristic of the 18th century. The Traceries assessment as an early 19th century structure is incorrect, based upon the dated 1780 chimney stone and the Flemish Bond chimneys. The structure may represent the first construction upon the original land patent.

This structure is recommended to be eligible for the NRHP. However, the top of the finished landfill will not be visible from the building (See Appendix 3). Thus, no mitigation is required.





24-0082, Locust Grove, 111 Locust Grove Road



24-0082, Locust Grove, 111 Locust Grove Road



24-0082, Locust Grove, 111 Locust Grove Road



24-0082, Locust Grove, 111 Locust Grove Road



24-0082, Locust Grove, 111 Locust Grove Road



24-0082, Locust Grove, 111 Locust Grove Road



24-0082, Locust Grove, 111 Locust Grove Road



24-0082, Locust Grove, 111 Locust Grove Road



24-0082, Locust Grove, 111 Locust Grove Road



24-0082, Locust Grove, 111 Locust Grove Road



24-0082, Locust Grove, 111 Locust Grove Road



24-0082, Locust Grove, 111 Locust Grove Road

**Figure 16: Locust Grove (DHR 024-0082) Current Resource Conditions**

Site 2, DHR 072-0205, Fairview Farm (Figure 17)

**Description:** The property is a 1915 constructed farmhouse and dairy operation with numerous coterminous and later outbuildings and at least 3 dairy barns and associated silos. The property is today run as an entertainment center for agricultural tourism. The property is very well maintained.

**Site Description:** The property is located on both sides of the county secondary road. The house and support structures are on the east side while the dairy barns are on the west side of the road.

**Surveyor Assessment:** While the farmhouse and dairy buildings form an integral and temporally consistent building set, the addition of several late 20<sup>th</sup> century buildings and a large parking lot detract from the overall theme of the property.

This structure is not recommended to be eligible for the NRHP. The top of the finished landfill will not be visible from the building (See Appendix 3). Thus, no mitigation is recommended.

Site 3, DHR 024-5079, Dwelling (Figure 18)

**Description:** The house was described as: “this one-story, three-bay, Colonial Revival-style single dwelling has a Cape Cod form and is set on a solid concrete-block foundation. The wood-frame dwelling is clad with weatherboard siding with narrow corner boards and is capped by a side-gabled roof of standing-seam metal. The roof is finished with overhanging eaves. An interior brick chimney pierces the roof on the southern slope. A centrally placed porch shelters the main entrance on the façade (north elevation) and is set on a concrete-block foundation. The front-gabled roof of the porch is covered in standing-seam metal with exposed rafter ends and is supported by square wood posts. The gable end is clad with vertical boards. A single-leaf, wood door pierces the central bay of the façade. It is flanked by window openings containing paired 1/1, double-hung, vinyl-sash windows with square-edged wood surrounds. The side (west and east) elevations are fenestrated with 2/2, double-hung, wood-sash windows. The northernmost bay on the west elevation contains a paired 2/2, double-hung, wood-sash window. All windows have square-edged wood surrounds.

A one-story, full-width porch is located on the rear (south) elevation and is set on a solid concrete-block foundation. The porch, constructed circa 1960, has a shed roof of standing-seam metal supported by square wood posts set on a solid concrete-block balustrade that is approximately 4 feet high. There are no decorative plantings in the yard. The roof is paneled tin. The portico front needs paint as does the house itself.”

**Site Description:** It has mature trees to either side. The yard is partially fenced. The side yard is used as storage for various items. The back yard contains multitudes of derelict vehicles, some under metal carports as well as automotive parts.

**Surveyor Assessment:** The house exterior is in fair shape. It is a common survivor of a common type built for families of limited means. Although the survey form indicates it was built circa 1940, it is more akin to post-WWII structures. There are no distinguishing characteristics to the house, and the trees form the only concession to landscaping. The ambience of the house is negatively modified by the contents and nature of the back yard automobile collection.

This property is not recommended eligible for the NRHP. The top of the finished landfill will be visible from the building (See Appendix 3). No mitigation is recommended.





72-0205, 1660 Ballsville Road



72-0205, 1660 Ballsville Road



72-0205, 1660 Ballsville Road



72-0205, 1660 Ballsville Road



72-0205, 1660 Ballsville Road



72-0205, 1660 Ballsville Road

**Figure 17: Fairview Farm (DHR 072-0205) Current Resource Conditions**





24-5079, 169 Anderson



24-5079, 169 Anderson

**Figure 18: DHR 024-5079 Current Resource Conditions**

*Site 4, DHR 024-5078, Dwelling (Figure 19)*

**Description:** The house was described as: “This two-story, three-bay, single-pile dwelling is an excellent example of a nineteenth-century I-house. It is currently vacant. The dwelling sits on a solid brick foundation of stretcher-bond brick and is capped by a side-gabled roof covered in asphalt shingles. The roof is finished by a boxed cornice, overhanging eaves, a plain frieze, and a raking cornice. This wood-frame house is clad in wood weatherboard siding and has wood corner boards. Interior-end brick chimneys are located along the east and west (side) elevations. The chimney along the east elevation is in poor condition. Although many of the window sash are missing, the building is fenestrated by 6/6, double-hung, wood-sash windows in a square-edged wood surround. Below the second-story window level is evidence of a one-story, full-length porch that was located along the façade. Square wood posts that support the porch roof are still attached to the northeast and northwest corners of the dwelling. The centrally placed, single-leaf entrance holds a paneled wood door. An elaborate entry surround that may have featured a transom and sidelights is currently missing, leaving the area around the entrance open to the elements. The entry is currently accessed by temporary wood steps. An original doorbell ringer is located immediately to the east of the door. The basement level is fenestrated by six-light, wood awning windows with a square-edged wood surround. The (east and west) side elevations are pierced by two small window openings in the upper gables.

A small one-story, shed-roofed addition is centrally located along the south (rear) elevation. This wood-frame addition is set on a concrete foundation and is clad in wood weatherboard siding. It has a one-bay porch on the east half of the addition. The porch has a single square wood post that helps to support the shed roof. The enclosed, western half of the addition is lighted by a window opening (window missing) on the south (rear) elevation.”

The house is clad in plain clapboard held in place by machine cut nails with some wire nails added later. The house is timber framed with 4x4 studs. The mantels are of different types. The west mantel is of black marble and the east mantel is of paneled wood with a black marble front and a wooden top. The ground floor floorboards are of uniform width about 5” wide. The entrance hall is constricted with the staircase facing the front and dominating the space. It has no adornment on the sides.

**Site Description:** The house faces onto Rt. 60 to the north and is set back from the road by about 400 feet. The land immediately around it has been cleared and is in grass with large trees around the yard. The house is vacant but is being renovated. Some windows are broken, the foundation is damaged and the doors are not lockable. In addition, vines are beginning to cover the house.

**Surveyor Assessment:** The house is a second quarter 19<sup>th</sup> century I-House common in Virginia for agriculturally based families of moderate means.

The house is not recommended eligible due to the current state of repair and because it is a relatively common survivor of a relatively common type. If the marble mantels are original, those appear to be the only out of the ordinary architectural adornments present in the house.

This property is not recommended eligible for the NRHP. However, the top of the finished landfill will be visible from the building (See Appendix 3). No mitigation is recommended.



24-5078, 185 Anderson Highway



24-5078, 185 Anderson Highway



24-5078, 185 Anderson Highway



24-5078, 185 Anderson Highway



24-5078, 185 Anderson Highway



24-5078, 185 Anderson Highway



24-5078, 185 Anderson Highway



24-5078, 185 Anderson Highway



24-5078, 185 Anderson Highway



24-5078, 185 Anderson Highway



24-5078, 185 Anderson Highway

**Figure 19: DHR 024-5078 Current Resource Conditions**



Site 5, DHR 024-0118, Bruner's Store (Figure 20)

**Description:** The house was described as: “This one-story, three-bay vernacular store has a rectangular form and is set on a stone pier foundation. The wood-frame building has narrow wood corner boards and is clad with aluminum siding on the façade (south elevation) and weatherboard siding on the side elevations. The building appears to be undergoing renovation at the time of the survey. A front-gabled roof of standing-seam metal is pierced by an interior brick chimney rising from the center of the store. The roof is finished with a boxed cornice and overhanging eaves. A one-story, newly constructed, full-width porch is located on the façade and is set on a poured concrete foundation. The front-gabled roof of the three-bay wide porch is covered with standing-seam metal and is supported by square wood posts and has exposed rafter ends. Centrally placed, double-leaf wood doors with lights are set within a recessed entrance on the façade. They are flanked by fixed, one-light commercial windows with wood surrounds that have recently been installed. The upper gable ends of the porch and main block have vacant openings, which will most likely contain vents at a later date. The side (west) elevation is fenestrated in the northernmost bay by a 6/6, double-hung, wood-sash window with a narrow square-edged wood surround. The central opening has been infilled with weatherboard siding and the southernmost bay of this elevation has been boarded-up with plywood (presumably obscuring a window opening). The side (east) elevation is fenestrated with 6/6, double-hung, wood-sash windows with narrow square-edged wood surrounds.

A one-story, full-width addition is located on the rear (north) elevation of the building. Constructed circa 1920, this addition has the same material treatment as the main block; it is clad in weatherboard siding. The shed roof is covered with standing-seam metal and has exposed rafter ends. Fenestration consists of 1/1, double-hung, metal-sash windows with square-edged wood surrounds.”

Metal siding has been added to the east, north and west walls, enclosing the piers. The front doors have been replaced with glass doors with dividers to resemble panes. The windows observed on the east and south are 2/2 types rather than the 6/6 types mentioned on the form.

**Site Description:** The building is set with the short axis facing onto Rt. 60 to the south. A circular driveway accesses the house with an extension along the east side to access the building to the rear. The building is currently used as a sales location for stone countertops and similar stone items. It is surrounded on 3 sides by open fields.

**Surveyor Assessment:** This structure has been altered from its original appearance by replacement front doors, a porch addition of recent vintage and metal cladding over most of the house apart from the north walls. The outbuildings are in a state of disrepair. This property is not recommended eligible for the NRHP. The top of the finished landfill will not be visible from the building (See Appendix 3). No mitigation is recommended.

Site 6, DHR 024-0240, Clinton Manor (Figure 21)

**Description:** The house was described as: “This house is significant as the only Downing inspired Gothic Revival house of its kind found in Cumberland County. It features several of the characteristics typical of this type: decorative verge boards in the gable end, a T-plan, a central four flue chimney, corner boards, and beaded weatherboard siding. In addition, this house is the manor house associated with the small town of Clinton.” It has a standing seam metal roof on the main part of the house while the “T” has a slate roof.



24-0118, Bruners Store,  
196 Anderson



24-0118, Bruners Store,  
196 Anderson



24-0118, Bruners Store,  
196 Anderson



24-0118, Bruners Store,  
196 Anderson



24-0118, Bruners Store,  
196 Anderson



24-0118, Bruners Store,  
196 Anderson

**Figure 20: Bruners Store (DHR 024-0118) Current Resource Conditions**



024-0240, Clinton Manor,  
199 Anderson



024-0240, Clinton Manor,  
199 Anderson



024-0240, Clinton Manor,  
199 Anderson



024-0240, Clinton Manor,  
199 Anderson



024-0240, Clinton Manor,  
199 Anderson



024-0240, Clinton Manor,  
199 Anderson



024-0240, Clinton Manor,  
199 Anderson

**Figure 21: Clinton Manor (DHR 024-0240) Current Resource Conditions**



**Site Description:** The house faces north onto Rt. 60 and is set back about 300 feet. Associated with it is a set of boxwood bushes evidently planted when the house was built.

**Surveyor Assessment:** The 1999 and 2008 assessments used the term significant and stated that it was the only one of its type left in the county. As such is a rare survivor of a somewhat rare type. The house is currently unoccupied and in need of paint on the exterior, but is fundamentally in good shape. The windows are intact and have storm windows over the originals.

The Clinton Manor House is recommended eligible for the NRHP. The top of the finished landfill will be visible from the building (See Appendix 3). Thus, mitigation is recommended.

*Site 7, DHR 024-0104, Brown Farm* (Figures 22 and 23)

**Description:** The site form describes the house: “The main house on the Brown property was constructed in two different stages: the earliest circa 1780, and the I-house portion circa 1840. The original house is one-and-one-half stories, steeply pitched roof, single room plan with a loft, resting upon a raised brick foundation. The I-house portion is attached on the east gable end of the earlier house. It is a typical I-house form: two stories, three bays wide, with brick end chimneys. Windows on the first floor are taller than those on the second floor. According to the current owner the original porch was Greek in style with a balustrade; the existing porch is three bays wide, and is supported by four Tuscan columns. Ornamentation includes a boxed cornice and replacement shutters on the front.”

The house is covered in metal siding that was placed over the original beaded clapboard siding. The east chimney is of 7-Course American Bond.

**Site Description:** The property sits back about 500 feet off a county secondary road and faces the road to the south. The lawn has mature trees designed for shade. In addition to the house, there are several original outbuildings extant, including a timber framed smokehouse that has been re-covered with plain siding using wire nails, well house with ventilated siding, slave quarters and a timber framed granary/barn type structure to the east. The slave quarters has had the chimney removed. The structural complex is complete for the time period. A 20<sup>th</sup> century set of buildings is extant, including a balloon built dairy barn with a banded concrete paneled silo set in a field to the west of the house, a machine shed to the northeast and a chicken house is set to the northwest of the house.

**Surveyor Assessment:** The buildings comprising the Brown Farm are either originals or first edition additions and are in the main in good shape. The slave quarters is largely intact apart from the lack of a chimney. The loft ladder is extant.

The preservation of the complex of buildings dating from the 18<sup>th</sup> into the 20<sup>th</sup> century is excellent and is significant due to both the preservation of the main building and the 18<sup>th</sup> century immediately ancillary buildings. The 20<sup>th</sup> century buildings do not intrude upon the visual ambience of the main complex and complement it from a distance as a continuation of rural agricultural lifeways.

This complex is recommended eligible for the NRHP. However, the top of the finished landfill will not be visible from the building (See Appendix 3). Thus, no mitigation is required.





72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm

**Figure 22: Brown Farm (DHR 024-0104) Current Resource Conditions**





72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm



72-0104, Brown Farm

**Figure 23: Brown Farm (DHR 024-0104) Current Resource Conditions (continued)**



*Site 8, DHR 024-0238, Rising Zion Baptist Church (Figure 24)*

**Description:** The church was built in 2002 replacing an earlier edition. It is brick founded with clapboard sides and an asphalt shingle roof. The telescoping design is a series of 4 nesting triangles with the smallest at the front. The sides are low, pierced by windows. A cross is situated on the top of the penultimate component.

**Site Description:** Rising Zion Church is situated in an open area with a front circular driveway. It is surrounded on three property edges by mature trees. The church faces south onto Rt. 60. To the west is a graveyard with multiple rows of tombstones, mainly upright tablet and pillow types.

**Surveyor Assessment:** The church is attractive, visually interesting and of modernist design. It is well maintained. It blends simplicity of design with functionality with small exterior architectural garnishments.

The building is not recommended to be eligible for the NRHP due to its age. However, the top of the finished landfill will not be visible from the church, (See Appendix 3). Thus, no mitigation is required.

*Site 9, DHR 024-5082, Pine Grove Rosenwald School (Figure 25)*

**Description:** The site form describes the house: “The former Pine Grove School is one-story, wood frame, rectangular-shaped building. It is three bays wide and one bay deep. The building has a hipped-roof, wood siding, and a brick pier foundation. A red brick chimney pierces the rear roof plane. The roof is now covered in asphalt shingles. The east-facing façade has a central, projecting entrance bay with pair of two-over-two wood windows on the front face and a wood, six panel-door on the side walls. The projecting bay is topped with a front gable pediment. The entrance bay is flanked by two, wood, six-panel doors. The north and side elevations each have one set of paired, two-over-two wood windows while the rear elevation has two sets of the same window each in a group of three. Overall, the building is good condition with the roof materials the only known exterior alteration.

The building is a one-story wood frame with what appeared to be the original slate roof. There is an enclosed gable on the front of the building with entrance doors and vestibules on either side of the gable. The gable has a pair of double hung windows. Three sets of double hung windows are located on both sides of the building and on the rear wall of the building. The interior of the building is divided into two classrooms. Two cloak rooms are located at the front of the building next to each entrance door. An industrial room is located inside the gable. [Date of construction noted as 1917-1920]”.

**Site Description:** The school faces onto Pinegrove Road to the north. It is set within a small cleared area with a woods road that continues the entranceway on the west side of the clearing. The land has recently been cleared of saplings and the structure has been somewhat stabilized.

**Surveyor Assessment:** The school was placed on the VA Landmarks Register in 2020 and is considered eligible for the NRHP. LIDAR investigation showed that the completed landfill will not be visible from the school due to intervening mainly coniferous trees. However, there is a sliver of land between the school and the landfill property that is not in the ownership of the landfill. Therefore, trees on that sliver, if harvested or removed, may render the completed landfill at least partially visible. If the completed landfill will not be directly visible from the school (See Appendix 3), then mitigation will not be required. However, if the landfill is partially visible from the school seasonally or if trees are removed, then mitigation measures will be required. Mitigation measures will be required.





024-0238, Rising Zion Baptist Church



024-0238, Rising Zion Baptist Church



024-0238, Rising Zion Baptist Church



024-0238, Rising Zion Baptist Church

**Figure 24: Rising Zion Baptist Church (DHR 024-0238) Current Resource Conditions**



24-5082 PINE GROVE  
ROSENWALD SCHOOL



24-5082 PINE GROVE  
ROSENWALD SCHOOL



24-5082 PINE GROVE  
ROSENWALD SCHOOL



24-5082 PINE GROVE  
ROSENWALD SCHOOL



24-5082 PINE GROVE  
ROSENWALD SCHOOL



24-5082 PINE GROVE  
ROSENWALD SCHOOL



24-5082 PINE GROVE  
ROSENWALD SCHOOL



24-5082 PINE GROVE  
ROSENWALD SCHOOL



24-5082 PINE GROVE  
ROSENWALD SCHOOL

**Figure 25: Pine Grove Rosenwald School (DHR 024-5082) Current Resource Conditions**



Site 10, DHR 024-0222, House

**Description:** The site form describes the house: “The 1-story, 3-bay, gable-roofed house with a pedimented front sits on a pier foundation with concrete block infill. The L-shaped house is clad with weatherboard siding and has 2 corbel-capped, brick chimneys. The front porch is missing, a porch has been added to west face of the rear ell.

**Site Description:** The site form describes the site: “The house is slightly set back from the road and addresses it frontally.”

A barn is located to the north of the dwelling. The 2-story barn has vertical board siding and a gable roof of standing-seam metal. A non-contributing shed is located to the north of the dwelling.

**Surveyor Assessment:** At the intersection of Cartersville Road and Deep Run Road, on the north side of Deep Run Road is a brick ranch style house dating from the 1950’s or later. Next is a house set back in woods that appears to be a modular type and the third structure is a modern 2 story frame house. No house matching the description on the form was extant in the area. It is possible that the modern house replaced an earlier structure as the yard has mature trees. In any case, the top of the completed landfill will not be visible at the coordinates given. (See Appendix 3). Mitigation measures will not be required.

Site 11, DHR 024-0217, House (Figure 26)

**Description:** The site form describes the house: “This is a 2-story, 3-bay, L-plan house, with brick end chimneys. The house is clad in weatherboard siding with corner boards and features a boxed cornice with cornice returns. A 2-story, 2-bay, porch extends across the front. The southwest corner has intersecting gables and turned posts”. The house is now vacant, covered in vines and not in good shape. A cinderblock flue replaced one end chimney and it appears to have been covered in metal siding as the siding meets the edges of the flue.

**Site Description:** The house is located on a downslope terrace to Muddy Run on a terrace with higher ground to the east. The grounds are used as a shooting range and are overgrown. Two ruinous sheds are present.

**Surveyor Assessment:** The house is a common survivor of a common type replicated in the VA Piedmont. It has no architectural merit and no adornments. There are no plantings around the house. The house is not recommended eligible for the NRHP. The house will not be visible from the top of the completed landfill (See Appendix 3). Mitigation measures will not be required.

Site 12, DHR 024-0085, Melrose (Figure 27)

**Description:** The site form describes the house: “This imposing brick dwelling is designed in a Greek Revival style and features a hipped roof and two interior chimneys. A one-story end wall porch with square Doric columns extends across the front elevation. The window and door surrounds, typical of the Greek Revival style, have pedimented caps. In addition, the front door is flanked by sidelights with a transom above, all below a pedimented surround.

**Interior Description:** The interior consists of a wide, central stair hall flanked by two front parlors; the two rear rooms are separated from the front of the house by a wood “screen” divider in the central passage. The stair is built against the side wall and has vertical board siding and turned balusters. The divider screen has Greek Revival detailing with a pedimented top and paneled side walls. Modern louvred screens fill in the opening. The original 4"-side floor boards are found in the front parlor, while narrower floorboards are in the central hall and dining room. Rather heavy mantels with an oversized egg and dart motif are found in almost all of the rooms.”





024-217, 267 Pinegrove Rd



024-217, 267 Pinegrove Rd Barn

**Figure 26: DHR 024-0217 Current Resource Conditions**





024-0085, Melrose



024-0085, Melrose



024-0085, Melrose



024-0085, Melrose



024-0085, Melrose



024-0085, Melrose



024-0085, Melrose



024-0085, Melrose



024-0085, Melrose



024-0085, Melrose



024-0085, Melrose

**Figure 27: Melrose (DHR 024-0085) Current Resource Conditions**



**Site Description:** The house is located at the end of a long drive and faces south over fields. Large trees and ornamentals are around the house. Several ancillary buildings of later date are present, as is a swimming pool. Situated east of it is an early 20<sup>th</sup> century house.

**Surveyor Assessment:** The house is currently in need of some cosmetic and minor repairs. Vines are growing over the back. The house is of typical of large Piedmont plantation houses based on agricultural pursuits that have devolved into a house with surrounding pasturage. The house is recommended eligible for the NRHP.

The top of the completed landfill will be visible from the house. (See Appendix 3). Mitigation measures will be required.

Site 13, DHR 024-0225, House (Figure 28)

**Description:** Based on the VCRIS map information, the description on the 1994 site form does not match the house found at the mapped location. But it does mostly match the outbuilding description. The current house is a modular 1 story vinyl German sided structure built within the last few years.

**Site Description:** The house is reached by a long access road. The house is situated adjacent to a field and has little yard and no adornments in it, although large trees are along the roadway and yard margins. The outbuildings are separated from the house by several hundred feet and are metal sided, tin roofed structures.

**Surveyor Assessment:** The house and outbuildings are not recommended eligible for the NRHP. The top of the completed landfill will not be visible from the house.(See Appendix 3). Mitigation measures will not be required.

Site 14, DHR 024-0252, Greenfield Farm (Figures 29 and 30)

**Description:** The site form describes the house: “This is a two-story, three-bay, vernacular I-house with a rear ell and later additions to the sides and rear. It features gable ends with scalloped shingles and verge boards and inset louvered vents. The gable roofs have patterned shingles. It also features boxed cornices and cornice returns and decorative consoles beneath the eaves on the north side of the rear ell.

There are several secondary resources sharing the site. The kitchen is weatherboard sided set upon a stone foundation with a side-facing slate shingle gable roof. The barn is also frame with weatherboard sided. It features a slate roof on the top with standing seam metal on the lower portion of the roof. The tenant house stands on a stone pier foundation, is two-stories, three bays, and features a slate shingle gable roof and weatherboard siding. It has an almost storefront like facade with scalloped shingles and consoles similar to the ones on the main house.”

**Site Description:** The house faces west onto Cartersville Road. It has extensive landscaping in the front and east yards. The site form described a tenant house as “store-like” but the current farm manager indicated that it had functioned as a store at one time.

**Surveyor Assessment:** The house, outbuildings and general area are well maintained and a good example of an agriculturally based late 19<sup>th</sup> to early 20<sup>th</sup> century farm (The site form indicates 1880 as the construction date while the county has it listed as 1920). The complex includes original structures and multiple later structures. The farm continues to be a working farm and is part of a several parcels and farms under the ownership of one individual. Due to the multiple ages of structures the original appearance has been altered and the complex is not recommended eligible for the NRHP. The completed landfill will not be visible from the house. (See Appendix 3). Mitigation measures will not be required.



24-0225, 618 Deep Run Road



24-0225, 618 Deep Run Road

**Figure 28: DHR 024-0225 Current Resource Conditions**



24-0252, 754 Cartersville Road



24-0252, 754 Cartersville Road



24-0252, 754 Cartersville Road



24-0252, 754 Cartersville Road



24-0252, 754 Cartersville Road



24-0252, 754 Cartersville Road



24-0252, 754 Cartersville Road



24-0252, 754 Cartersville Road



24-0252, 754 Cartersville Road



24-0252, 754 Cartersville Road



24-0252, 754 Cartersville Road



24-0252, 754 Cartersville Road

**Figure 29: Greenfield Farm (DHR 024-0252) Current Resource Conditions**





24-0252, 754 Cartersville Road



24-0252, 754 Cartersville Road



24-0252, 754 Cartersville Road

**Figure 30: Greenfield Farm (DHR 024-0252) Current Resource Conditions (continued)**



## ***Archaeological Investigation***

### **Phase IA Survey**

In the fall of 2018, Lyle Browning of Browning & Associates, LTD. conducted a Phase IA archaeological investigation of the entire Green Ridge property ( $\pm 1,178$  acres). The survey methodology included archival research, informant interviews, and pedestrian inspection and was intended to identify standing structures and locations with an increased potential to contain intact archaeological deposits within the subject property. Utilizing this methodology, Lyle Browning identified eight archaeological sites within the Green Ridge property (Figure 31).

The archival investigation included inspection of historic maps, aerial images, and LiDAR imagery; and examination of the 1850, 1860, and 1870 US Census tabulations, the 1850 and 1860 Slave Schedules, Land Tax Records, Personal Property Tax Records, Agricultural, Industrial, and Special Census tabulations for 1850, 1860, and 1870; Free Negroes of Cumberland County records and Deeds involving the sale of various parcels within and surrounding the project area through the first half of the 20<sup>th</sup> century. Local residents with direct knowledge of the history of the property and its former inhabitants were also interviewed to provide information about potential resource locations within the property that may not have been found in historic documents.

The pedestrian inspection of the property involved visual examination of areas adjacent to existing county roads (Pinegrove Road and Miller Lane) and trails, historic roads, and old logging roads in the property interior.

### **Archaeological Sites**

**Cemetery (Site 44CM0134)** - This site is a probable African American cemetery that includes at least twenty-two interments as indicated by fieldstone grave markers and some fieldstone footers (Figures 32 and 33). None of the grave markers bore inscriptions and the identity of those interred in the cemetery remains unknown. Visual inspection suggests interments are organized in three rows, but additional burial features are possible.

**Reverend's Still (Site 44CM0135)** - The site location includes four galvanized metal sided, wooden bottom barrels, a 55 gallon barrel with adapted pipe extension and cinderblock base, and scattered barrel hoops. The barrels include bullet holes and ax marks. Local informants suggest this site includes the remains of a still operated by a local Baptist minister, that was destroyed by revenueurs.

**Jeffries Site (Site 44CM0136)** - Located on the north side of a sharp bend in Pinegrove Road, this site consists of an overgrown grassy meadow that includes an L-shaped cellar hole that appears to have been constructed in two episodes. Local informants suggest the house was dismantled and shipped to England. A utility pole located west of the cellar hole, suggests the house was still standing during the electrification of the area in the mid twentieth century. At the time of the Phase IA investigation, the cellar included a variety of building debris, including structural timbers and tin roofing sheets. A timber-framed structure with mortise and tenon joinery and cut and wire nails and circular saw marks, a concrete silo base, at least three piles of brick and stone suggestive of structure locations, and a hog scalding foundation also fall within the site boundary. The 1864 Gilmer map of Cumberland County indicates the property was owned by "Jeffries" at that time.

**The Frog Site (Site 44CM0137)** - Located on a heavily deflated knoll, formerly used as a staging area for timber harvesting and named for a glass frog used in flower arrangements observed



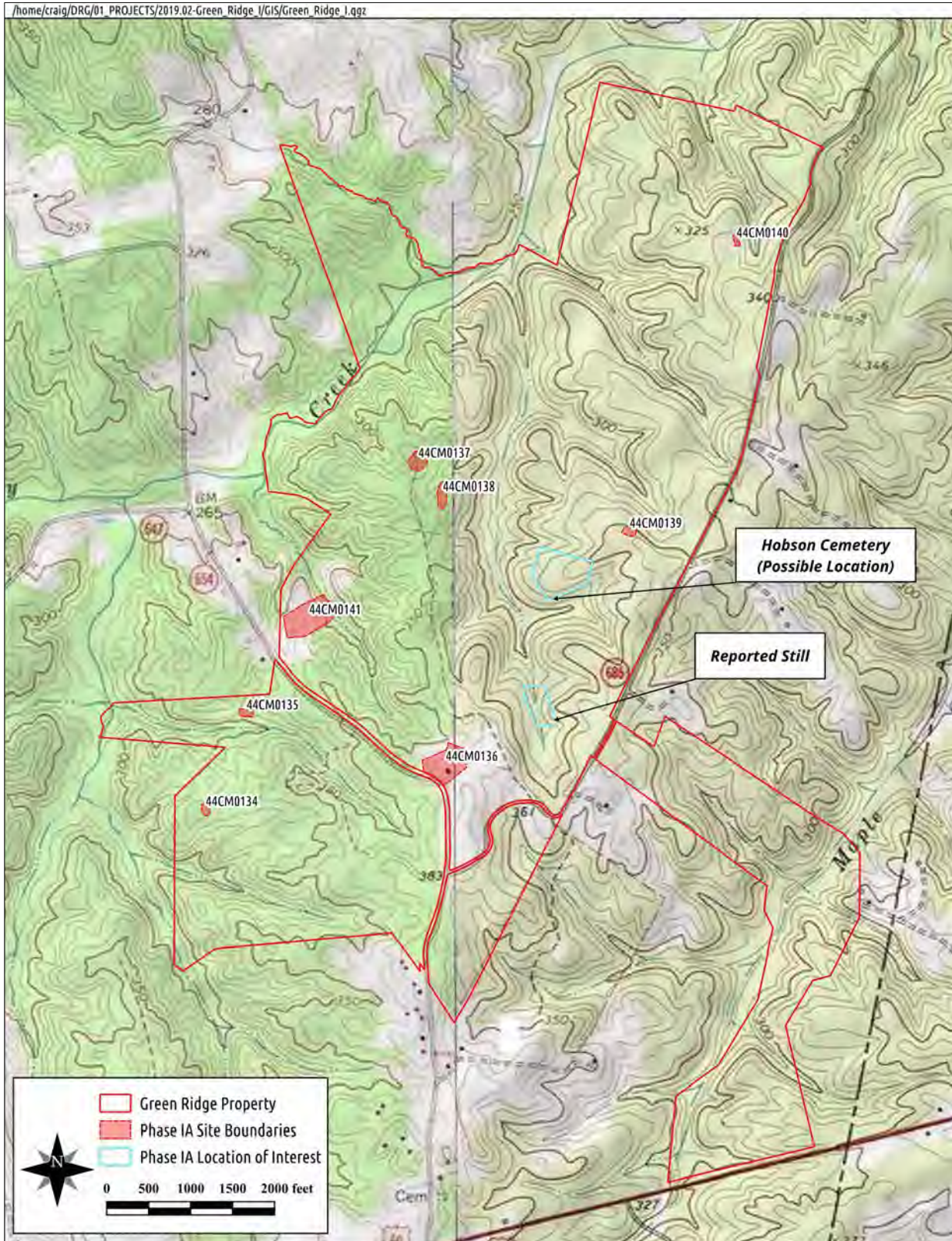
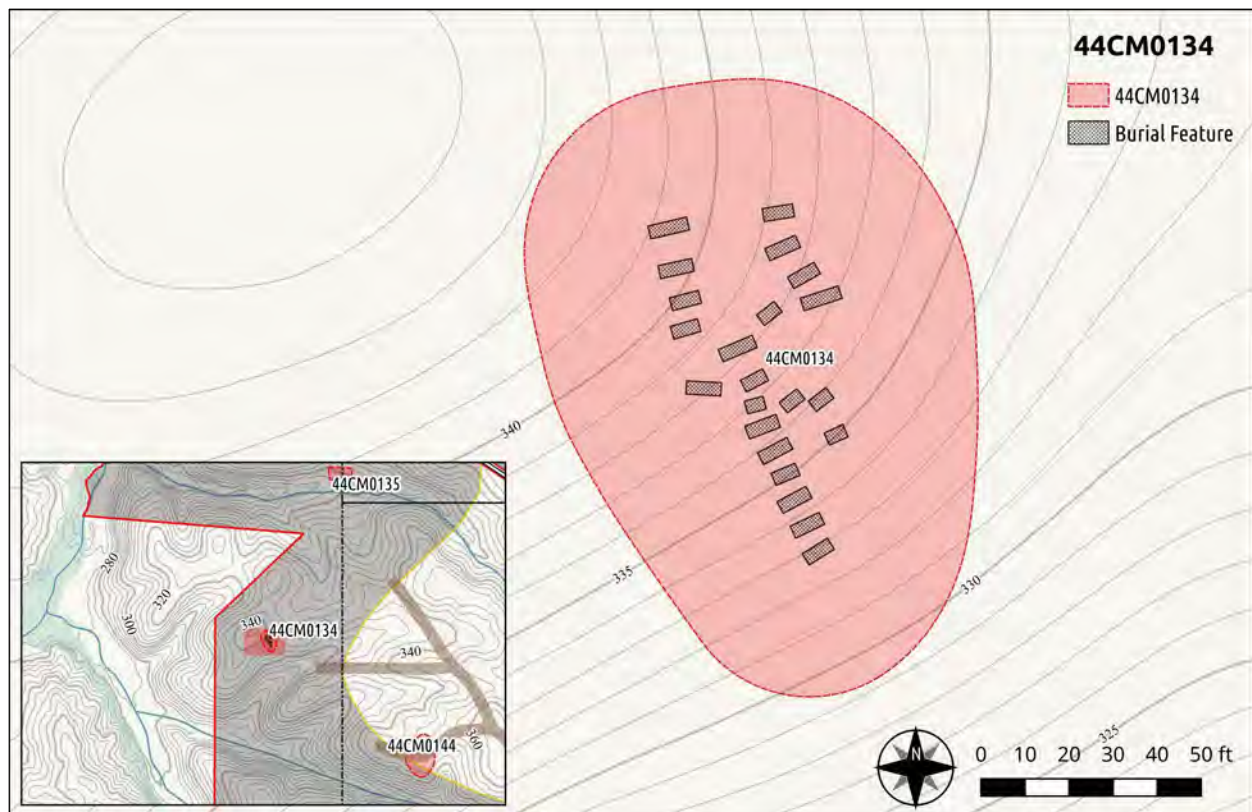


Figure 31: Overview of Phase IA Survey Area and Archaeological Sites Identified within the Green Ridge Property on the 1969 Trenholm and Whiteville USGS 7.5 Minute Quadrangles.





**Figure 32: Map of Burial Features at Probable African American Cemetery (44CM0134).**



**Figure 33: Survey Location of Headstones/Footstones (orange flags) at Probable African American Cemetery.**

during the pedestrian inspection, this site was identified based on the presence of glass container fragments, 20<sup>th</sup> century hotelware coffee cup fragments, and a small scatter of brick fragments. Based on the artifacts observed, the site was interpreted as a former habitation dating to the late nineteenth/early twentieth century.

**Chimney in the Field Site (Site 44CM0138)** - The site includes a partially collapsed, mud-mortared, stone chimney in a recently cut-over timbered area. An iron bar was also noted at the top of the fire box. This site was interpreted as the remains of a former slave quarters or Post-Bellum African American domestic structure.

**Periwinkle Patch / Hobson Site (Site 44CM0139)** - Described as the “Hobson Mansion” in a historic deed, the site is accessed by a logging road that extends west from Miller Lane. Evidence of historic activity include an expanse of periwinkle covering an area of approximately two hundred feet by one hundred fifty feet, a brick-lined cellar hole, and possible ice house pit.

**Chimney in the Woods / Ammoynett Site (Site 44CM0140)** - This domestic site is identified by a two-story ashlar stone block chimney with brick top. Iron bars denote the top of the fireplace on the first and second floors. Remnants of the walls adjacent to the chimney indicate that interior walls were plastered. The surrounding vegetation and irregular ground surface in the vicinity of the chimney suggest the possible presence of additional structures. The name “Ammoynett” is associated with a structure noted in this location on the 1864 Gilmer map of Cumberland County.

**Jesse Parker Site (Site 44CM0141)** - The Jesse Parker site sits atop a ridge spur on the north side of Pinegrove Road and contains the remnants of at least three structures. The primary resource is a frame dwelling that included a stone chimney and was supported by stone piers. The structure appears to have collapsed vertically and then fallen inward. Another structure, with half-lap joinery and wire nails, set atop ashlar stone piers is located south of the dwelling also appears to have collapsed vertically. A third structure, located northeast of the dwelling is represented only by stone piers.

### ***Locations of Archaeological Interest***

Two additional sites were suggested by the archival investigation and informant interviews, but were not located during the pedestrian inspection of the property.

**Hobson Cemetery** - Deeds for the sale of the Hobson property refer to a reservation of burial and visitation rights on one of the three parcels comprising the property. The location is in a pine plantation and could not be located despite the efforts of several individuals. It appears that the graveyard was perhaps never used or the worst case was that it was bulldozed when the pine plantation was constructed. The most probable location for the cemetery is on a finger ridge southwest of the Hobson Site.

**Reported Still** - A local hunter also mentioned the presence of a second still near the head of a watercourse that extends north from Miller Lane, bisecting the project area. However, visual inspection of the area in question found no evidence of a still.

It should also be noted that Civil War earthworks were said by local sources to exist on the property. The suspected locations were visited with the source (Nic Jerome) and found to be bulldozer push-piles. It has also been proposed that a small-scale Civil War action took place along Miller Lane just prior to April 9, 1865. Miller Lane at one time connected what is now Rt. 60 to the James River road that led to the river crossing at Cartersville. This conjectured action was not listed in Warriner’s “A register of military events in Virginia, 1861-1865” (1959).







## ***Standing Structures***

No historic standing structures were identified within the project area during the Phase IA investigation.

## **Phase IB Investigation**

The Green Ridge property is divided by Miller Lane and Pinegrove Road, and includes  $\pm 1,178$  acres in eastern Cumberland County (noted in red, Figure 34). Current plans call for the construction of an entrance road from Anderson Highway (US 60), a waste disposal area, borrow pits, supporting infrastructure, and realignment of portions of Pinegrove Road and Miller Lane. The Phase IB investigation was restricted to approximately 1,100 acres. Uninvestigated areas are shaded and outlined in yellow in Figure 34.

The Phase IB survey area was visually inspected for any surface indications of cultural activity. The portion of the project area located west of Area 2 in Figure 34 was visually inspected and observed to contain sloping terrain above an unnamed tributary to Muddy Creek with a low probability to contain cultural materials. Consequently, this area was not subjected to subsurface testing and is not included in the following discussion.

A total of 2,447 shovel test pits (STPs) were excavated in areas thought to have an increased potential to contain cultural resources. Three low density historic artifact scatters were also metal detected to refine site boundaries and provide a better understanding of site type/internal activity areas and the date of occupation.

Field investigations identified four new archaeological sites (44CM0144, 44CM0145, and 44CM0146, 44CM0152) and refined the boundaries of six recorded archaeological sites (44CM0136, 44CM0137, 44CM0138, 44CM0139, 44CM0140, and 44CM0141) identified during the Phase IA investigation (Figure 35). In the following discussion, the limits of proposed disturbance are divided into nine survey areas (see Figure 34). The environmental setting, field methodology, and results of Phase IB testing are discussed for each study area, individually in the following section.

### ***Area 1***

Area 1 includes approximately 131 acres in the northwestern portion of the project area. Appling fine sandy loam (1B) and Enon-Helena complex (16B) soils are common along the ridge crest and Appling-Helena complex (2C), Poindexter-Wedowee complex (32D), and Wateree sandy loam (42D) are found on the slopes leading down to the drainages (Figure 36). All soils are commonly found on gently sloping ridges and side slopes of ridges between intermittent and permanent streams in the southern Piedmont. These deep, well-drained soils are used for crops of corn, tobacco, or soy beans, or left forested with mixed hardwoods and pine (Reber et al. 2007).

Elevations within Area 1 range from 244 to 336 feet a.m.s.l. with the highest elevations concentrated in the southern portion of the area along the crest of a broad upland ridge (Figure 37). Drainage is through a series of draws along the perimeter of the ridge which flow into Muddy Creek to the northwest and an unnamed tributary to Muddy Creek to the east.

At the time of this investigation, the eastern half of the area had been timbered in the past six to nine months and heavily disturbed staging areas, brush piles, and other debris resulting from the logging operation were common. The western half of the study area was covered in secondary mixed deciduous/coniferous forest and, based on historic aerial imagery appears to have been most recently logged in 2002.

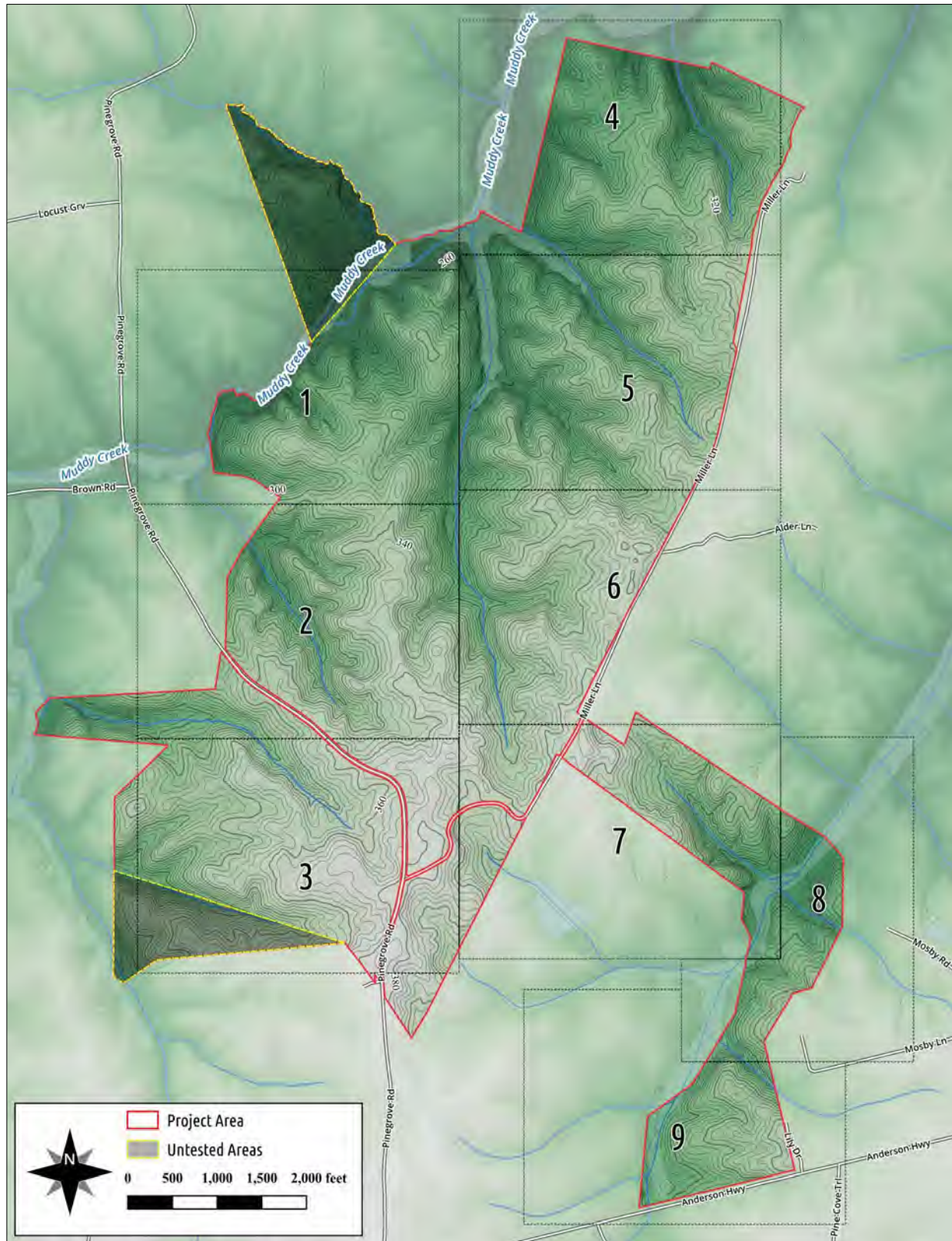
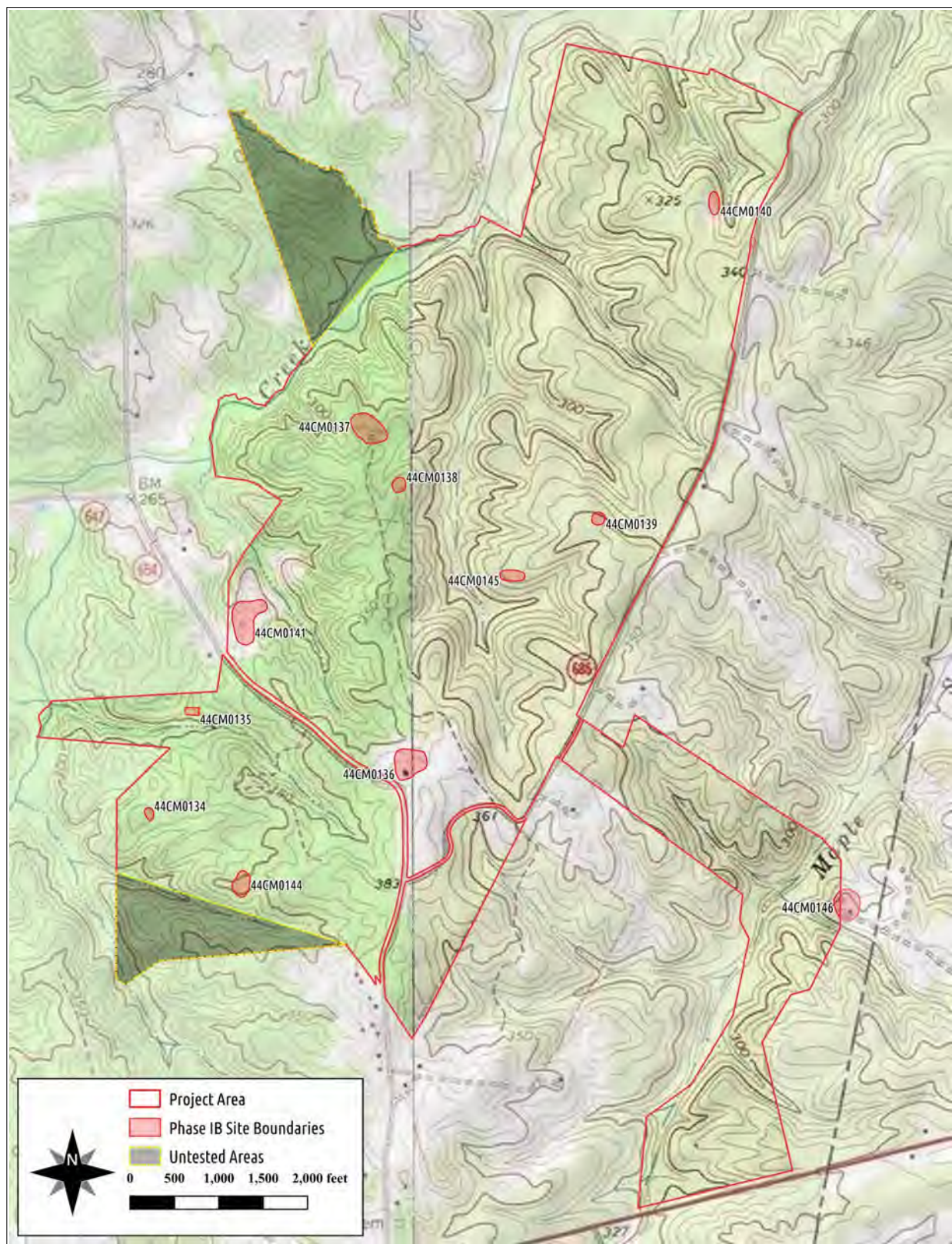


Figure 34: Overview of Phase IB Survey Area and Nine Study Areas within the Green Ridge Property.







**Figure 35: Overview of Phase IB Survey Area and Archaeological Sites Identified within the Green Ridge Property on the 1969 Trenholm and Whiteville USGS 7.5 Minute Quadrangles.**





Figure 36: Most Recent Aerial Imagery of Area 1 with Soils Overlay and Phase IA Site Boundaries.



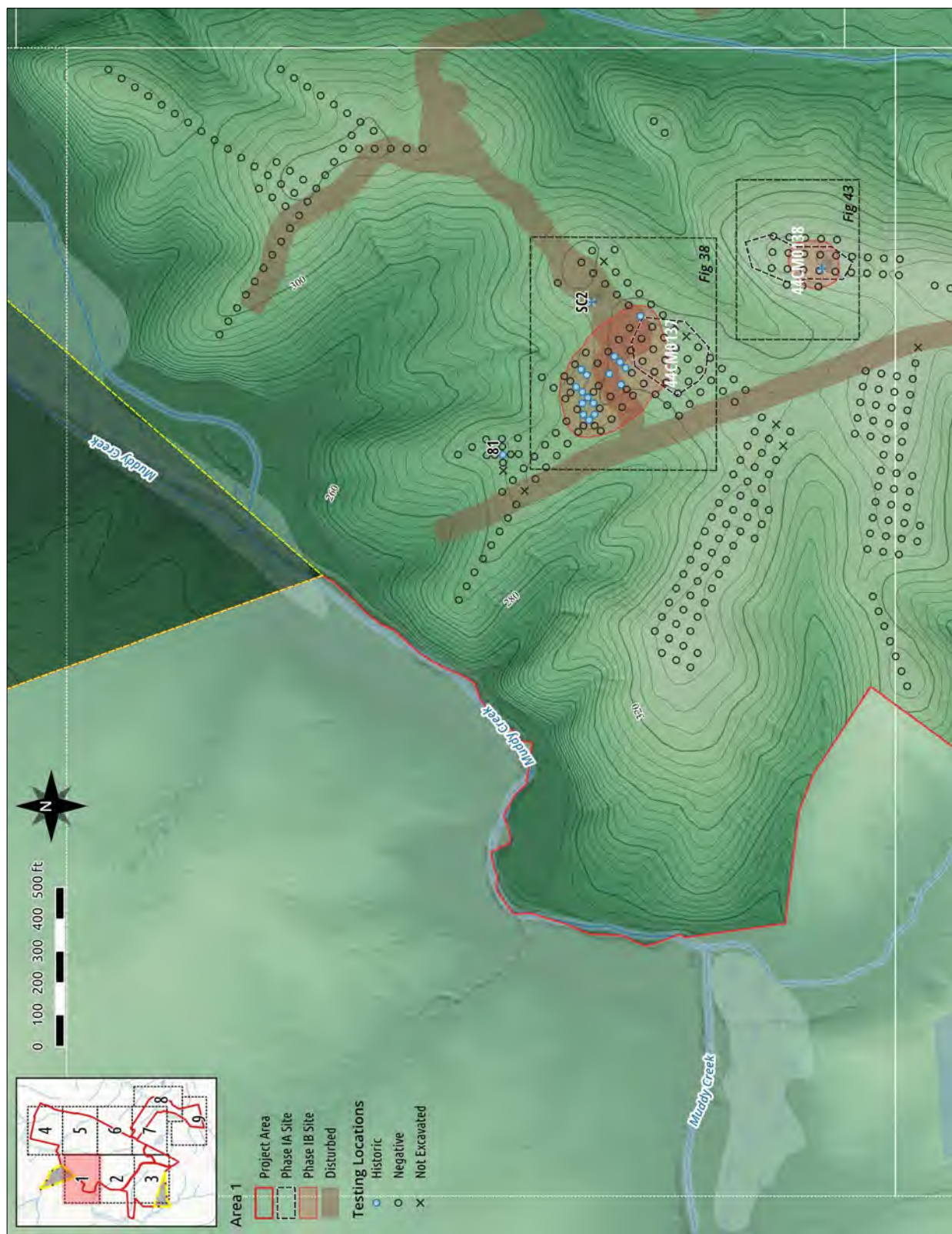


Figure 37: Topographic map showing Phase I testing locations, existing disturbances (brown), and original (black) and revised (red) site boundaries in Area 1.

The Phase IA investigation of the entire property conducted in the fall of 2018 identified two historic domestic archaeological sites, the Frog Site (44CM0137) and Chimney in the Field (44CM0138) on two small ridges in the recently logged portion of the survey area. Thus, Area 1 was thought to have a high probability to contain subsurface deposits dating to the historic period.

Subsurface testing in Area 1 included the excavation of 296 STPs in moderate and high probability areas and the excavation of forty metal detector strikes. Subsurface testing refined the locations of two previously recorded archaeological sites and identified one isolated find. The typical profile encountered in Area 1 was deflated and included a plow zone (Ap) above sterile subsoil, as recorded in STP 81; summarized below:

#### **Area 1, STP 81**

Ap: 0-7 inches-10YR 5/4 yellowish brown sandy loam

B horizon: 7-10 inches-10YR 5/8 yellowish brown sandy clay loam

Sixteen of shovel tests excavated north and west of the Frog Site produced artifacts that were contemporaneous and functionally related to those identified at the site during the Phase IA investigation and the boundary of site 44CM0137 was expanded accordingly. One additional positive STP (STP 81), located on a spur 250 feet northwest of the other pits, produced a chain fragment and was classified as an isolated find. No prehistoric artifacts were identified during Phase IB testing in Area 1.

Shovel testing of the Chimney in the Field site produced no evidence of the historic occupation, evidenced by the extant, partially-standing stone chimney. Consequently, this area was also surveyed with a metal detector. Metal detection identified two high-density concentrations in the central portion of the site. Outside of the concentrations, forty additional strikes were mapped and excavated.

#### **Frog Site (44CM0137)**

The Frog Site is located in the central portion of Area 1 and corresponds to the location of a historic structure visible in historic aerial photographs dating back to 1947. Visual inspection of the area during the shovel testing investigation identified numerous artifacts indicative of a domestic occupation, including a flat iron, ceramic sherds, glass bottle fragments, window glass, and numerous shoe soles. A small scatter of brick was also observed in the vicinity of STP 52.

The site is currently accessed by a dirt road that extends approximately 1 mile to Miller Lane. This road and a large clearing around the structure is visible in the 1958 black and white aerial image of the site and surrounding area (Figure 38).

As originally defined, the site location corresponded to a heavily disturbed staging area, and was thought to have a low potential to contain intact subsurface deposits (Figure 39). However, the STP survey demonstrated that the site extends further to the north and west, into an area that, while impacted by previous timbering activities, retains a greater degree of stratigraphic integrity (Figure 40). Based on historic map projection, surface evidence of cultural activity, and sixteen positive STPs, site 44CM0137 measures approximately 400 by 250 feet, or 2.24 acres (see Figure 38).

Soil profiles in the former staging area southeast of STP 48 were completely deflated (see Figure 39). When comparing the color of surface soils in this location to the typical soil profiles for Appling Series Soils, it appears all soils above the Bt horizon, typically found 12 inches below ground surface, have been displaced. Visual inspection of the area north and west of the staging



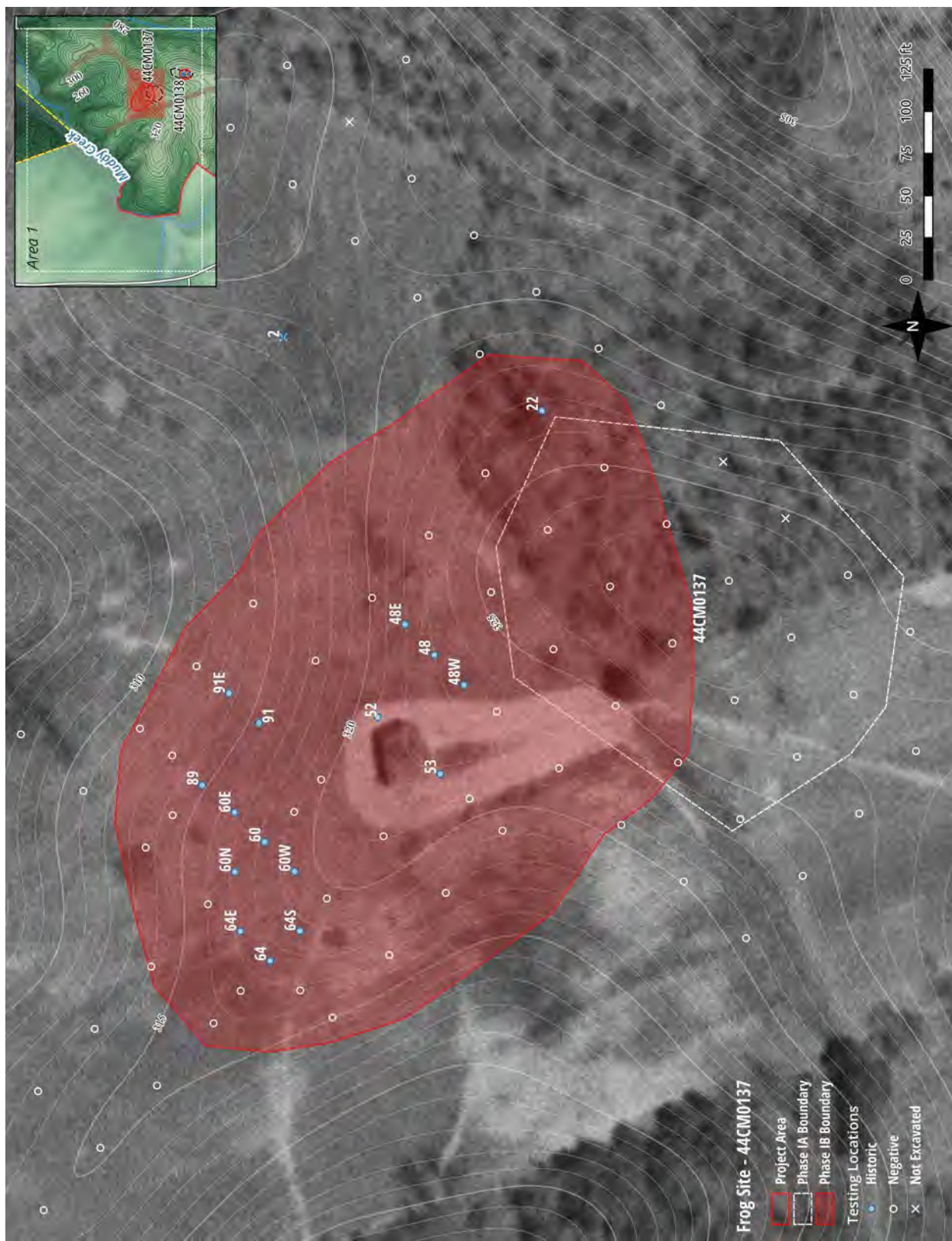


Figure 38: Closeup of Subsurface Testing, Phase IA Boundary (white) and Phase IB Boundary (red) for Site 44CM0137 Overlain on 1958 Black and White Aerial Imagery.





**Figure 39: Heavily disturbed, southeastern portion of site 44CM0137 .**



**Figure 40: Northwestern (less disturbed) Portion of Site 44CM0137.**



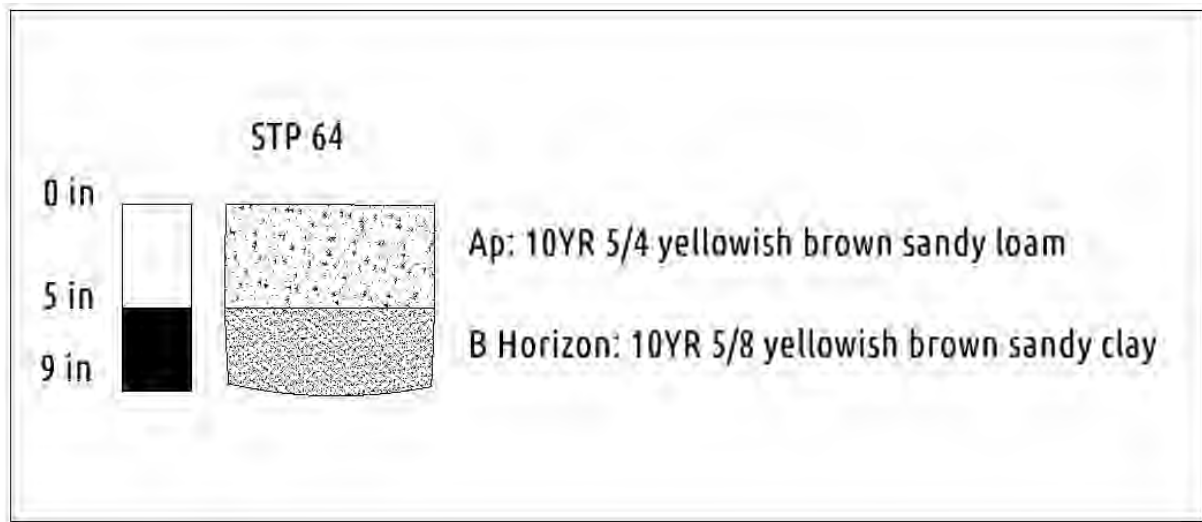


Figure 41: Typical Soil Profile at the Frog Site (44CM0137).

area found this portion of the site to be less disturbed. During the STP survey, excavators typically encountered a soil profile consistent with other parts of Area 1, comprised of a plow zone (Ap) above sterile subsoil (B horizon), as exemplified by the profile of STP 64, summarized below and illustrated in Figure 41:

#### Area 1, STP 64

Ap: 0-5 inches-10YR 5/4 yellowish brown sandy loam

B horizon: 5-9 inches-10YR 5/8 yellowish brown sandy clay loam

Thirty-seven artifacts were recovered from sixteen positive STPs during the Phase IB survey of site 44CM0137. Temporally diagnostic artifacts included lime soda windowpane fragments (1864-present), bottle/jar fragments produced with an Automatic Bottle Machine (1907-present), and whiteware (1820-present). Although the quantity of artifacts recovered from the site is small, it suggests that site 44CM0137 includes the remains of a late 19th/early 20<sup>th</sup> century dwelling. The artifacts recovered from the site are summarized in Table 5 and described in detail in Appendix 4.

Table 5: Artifacts Recovered from the Frog Site (44CM0137)

Artifact Type	Ap
<b>Architecture</b>	
lime soda (post 1864) windowpane glass	2
unidentified nail(s)	2
<b>Kitchen</b>	
bottle/jar	17
bottle/jar, ABM (post 1907)	1
canning jar	2
glassware, pressed	1
jar, ABM (post 1907)	1
porcelain	1
unidentified refined earthenware	1



white milk glass canning jar lid liner fragment	2
whiteware (post 1820)	3
<b>Organic</b>	
coal	2
<b>Unidentified</b>	
unidentified ferrous metal	2

### *Chimney in the Field Site (44CM0138)*

The Chimney in the Field Site occupies a narrow ridge in the southeastern quadrant of Area 1 (see Figure 37). Unlike, the Frog site, no structure is visible in historic aerial imagery and nothing is noted in this location on historic maps of the surrounding area. However, the site is represented by a partially collapsed fieldstone, mud-mortared chimney (Figure 42). Closer inspection of the area revealed a discreet surface scatter of melted glass in the immediate vicinity of the chimney. A large dead tree located approximately 50 feet east of the chimney may mark the limits of what was once the domestic area, or yard (see Figure 42). This site was likely accessed by the same road that connected the Frog Site to Miller Lane.



**Figure 42: “Chimney in the Field” and core area of site 44CM0138 (between dead tree and chimney).**

The original site boundaries were defined by the landform and extended approximately 350 feet north to south by 100 feet east to west. Given a general lack of observable artifacts, it was interpreted as the possible remains of a former slave or tenant quarters. During the STP survey, twenty STPs were excavated within and around the site boundary (Figure 43). Although soil profiles within the site boundary retain a high degree of stratigraphic integrity, none produced evidence of historic activity. The typical soil profile included a fill (Fill 1) above an E horizon; underlain by sterile subsoil. The profile of STP 114, located in the center of the site, is summarized and illustrated in Figure 44 and exemplifies the typical soil profile at 44CM0138.

### **Area 1, STP 114**

Fill 1: 0-7 inches-10YR 5/6 yellowish brown sandy loam

E horizon: 7-11 inches-10YR 6/6 brownish yellow sandy loam

B horizon: 11-14 inches-7.5YR 6/8 reddish yellow sandy clay loam

Following the STP survey, a metal detector survey was undertaken in an effort to provide evidence of site activities and an interpretation of site function. The metal detector survey area

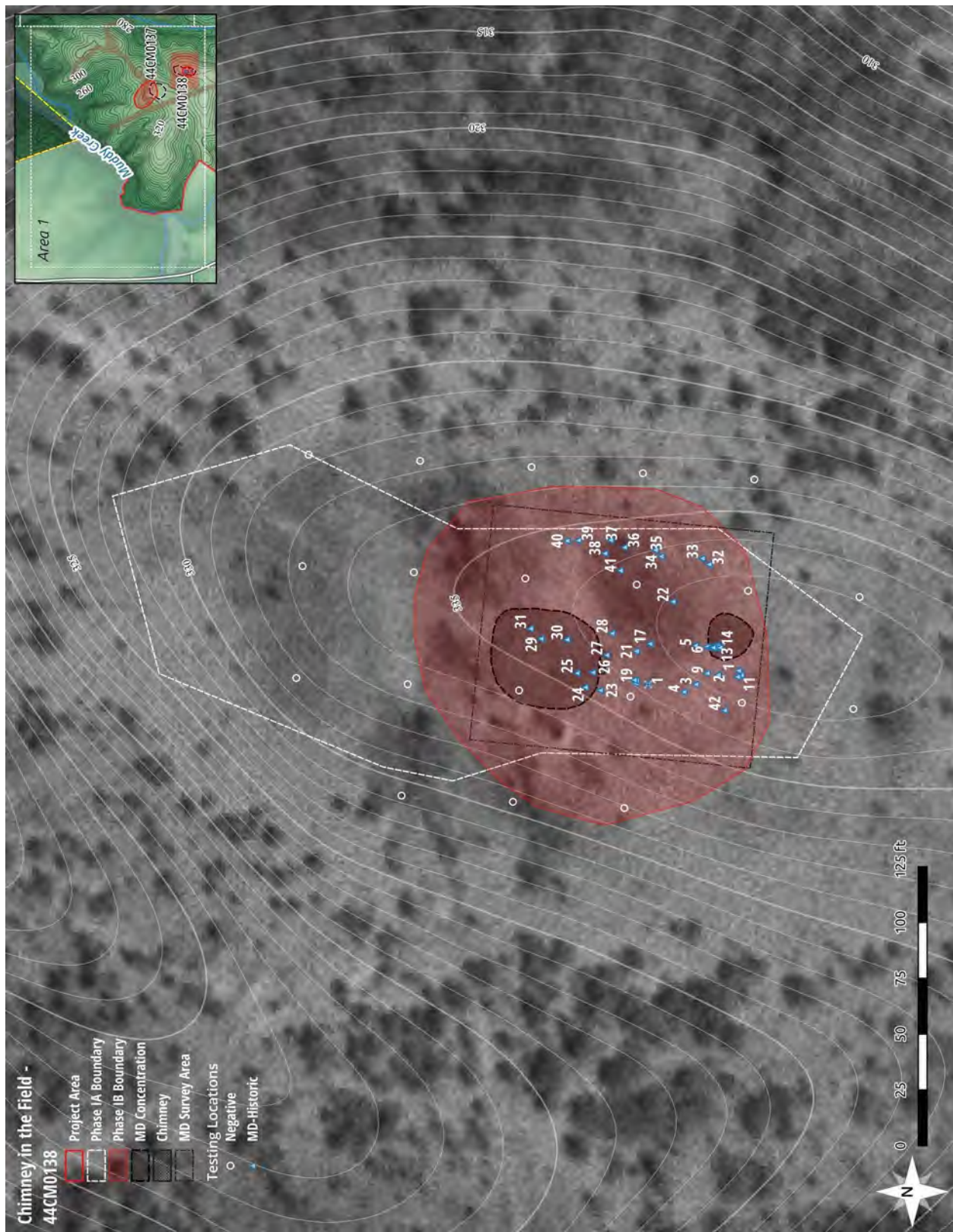


Figure 43: Closeup of Subsurface Testing, Phase IA Boundary (white) and Phase IB Boundary (red) for Site 44CM0138 Overlain on 1958 Black and White Aerial Imagery.



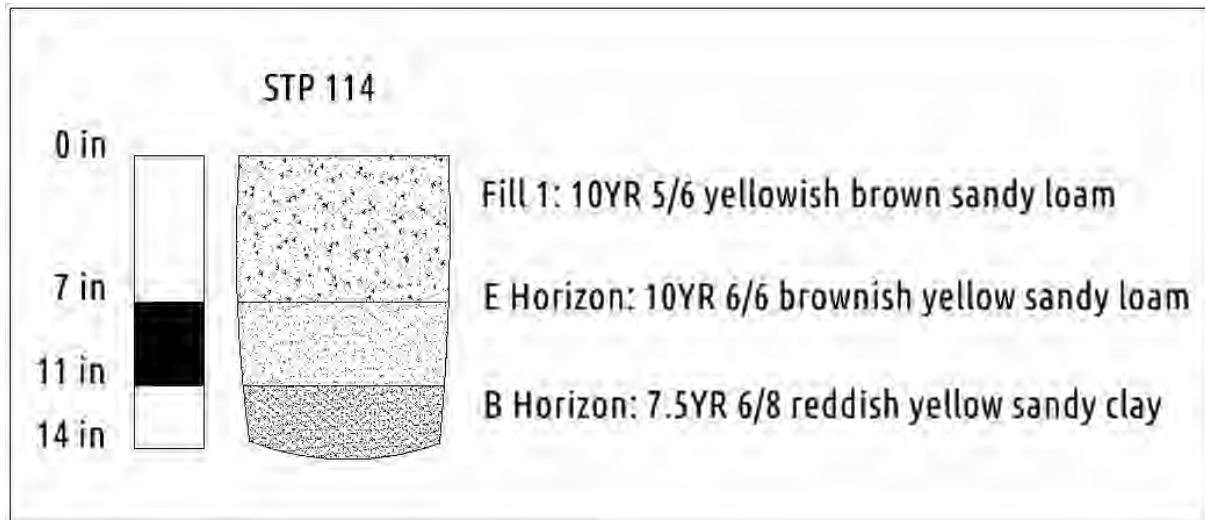


Figure 44: Typical Soil Profile at the Chimney in the Field Site (44CM0138).

extended approximately 125 feet north to south by 100 feet east to west and identified a general scatter of metal objects across most of the survey area, with two dense concentrations in the central portion of the site. The larger concentration surrounded the chimney and likely represents the location of the former structure (see Figure 43). The revised site boundary for the Chimney in the Field site measures approximately 150 feet north to south by 125 east to west and includes 0.44 acres.

A total of 185 artifacts were recovered from 42 metal detector strikes and one surface collection location during the metal detector survey. Surface finds included nine glass fragments recovered from exposed soil adjacent to the chimney. Four of the glass fragments were melted and unidentifiable. All artifacts encountered during the excavation of metal detector strikes were retained. Finds recovered during the metal detector survey included historic ceramics, glass, metal and bone. Temporally diagnostic artifacts included cut (1790-present) and wire (1890s-present) nails, lime soda windowpane fragments (1864-present), bottle/jar fragments produced with an Automatic Bottle Machine (1907-present), English hard paste porcelain (post 1820), ironstone (post 1840), and whiteware (post 1820). The assemblage recovered from site 44CM0138 suggests it includes the remains of a late 19th/early 20th century dwelling. The presence of considerable quantities of glass, and burned glass in what is suspected to be the former structure location may indicate that the structure burned, possibly in the first half of the twentieth century. The artifacts recovered from the site are summarized in Table 6 and described in detail in Appendix 4.

Table 6: Artifacts Recovered from the Chimney in the Field Site (44CM0138)

Artifact Type	Ap	Fill 1
<b>Activities</b>		
eye bolt		1
wire fencing		7
<b>Architecture</b>		
cut nail(s) (1790-present)		5
cut nail(s), machine headed (1825-present)		3



hinge		1
lime soda (post 1864) windowpane glass	3	8
locking bolts and brackets		1
other other		1
staple		2
strap hinge	1	
unidentified nail(s)		2
wire nail(s) (1890s-present)	2	79
<b><i>Clothing</i></b>		
safety pin		1
<b><i>Furniture</i></b>		
steamer trunk corner guard		2
<b><i>Kitchen</i></b>		
bottle/jar	1	5
bottle/jar, ABM (post 1907)		4
canning jar		1
English hard paste porcelain (post 1820)		1
glassware, pressed		2
ironstone (post 1840)	1	
metal pot(s), blue and white enamelware lid fragment, hole in center	1	
spoon bowl fragment, unidentified ferrous metal		1
whiteware (post 1820)		2
<b><i>Organic</i></b>		
bone	1	1
<b><i>Personal Items</i></b>		
boot spur		1
shoe		1
<b><i>Unidentified</i></b>		
unidentified ferrous metal	1	11
unidentified glass, burned	4	24
unidentified non-ferrous metal		1
unidentified other		2

## ***Area 2***

Area 2 encompasses approximately 174 acres of the central-western portion of the landfill property. The southern half of the area is covered with mature, planted pine forest with a sparse understory. Recent aerial imagery indicates the northern portion of Area 2 was harvested in 2009 and at the time of this investigation was covered in secondary deciduous/coniferous forest. Area 2 is bisected by the historic road that connects the Frog Site and Chimney in the Field (Area 1) to Miller Lane and although the existing roadway appears to roughly follow the road alignment in historic aerial photos, push piles located on both sides of the road suggest that it has been altered with heavy machinery, likely to improve access for logging equipment (Figure 45).





**Figure 45: Mature Coniferous Forest (top), Secondary Deciduous/Coniferous Forest (bottom left), and Modified Roadway (bottom right) in Area 2.**

Appling (1B), Cecil (6B), and Helena (21B) sandy loams, and Mattaponi-Appling complex (23B) are found along the crest of the ridge that runs through the central portion of the survey area and the crests of the finger ridges and spurs found along its eastern and western limits. Appling-Helena complex (2C) and Pacolet-Waterree complex (30D) are found on the slopes leading down to the unnamed tributaries to Muddy Creek, located on the eastern and western flanks of the ridge (Figure 46). All soils are typical of gently sloping summits/shoulders and moderate side slopes in the southern Piedmont (Reber et al. 2007).

Elevations within Area 2 range from 268 to 372 feet a.m.s.l. with the highest elevations concentrated in the southern portion of the area along the crest of the broad upland ridge that extends into Area 2 (Figure 47). Drainage is through a series of draws along the perimeter of the ridge which flow into unnamed tributaries to Muddy Creek.







Figure 46: Most Recent Aerial Imagery of Area 2 with Soils Overlay and Phase IA Site Boundaries.



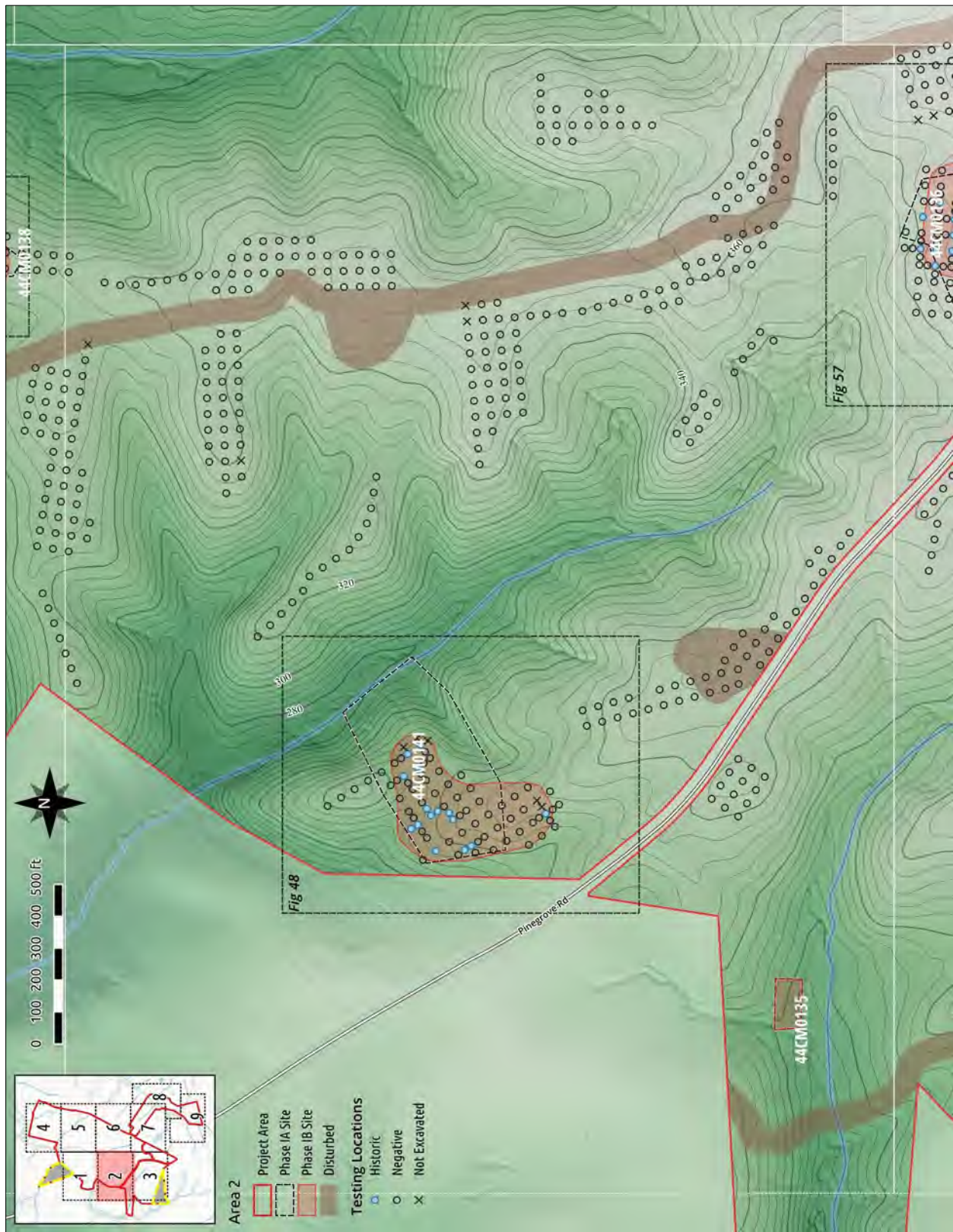


Figure 47: Topographic map showing Phase I testing locations, existing disturbances (brown), and original (black) and revised (red) site boundaries in Area 2.

Two archaeological sites (Reverend's Still – 44CM0135 and the Jesse Parker Site - 44CM0141) were identified in the western portion of Area 2 during the Phase IA investigation. Site 44CM0135 contained the remains of a destroyed illicit liquor still. Site 44CM0141 was identified on the basis of the above-ground remnants of two collapsed structures and the foundation piers of a third structure. Site 44CM0135 lies outside of the limits of disturbance and was not subjected to subsurface testing. However, STPs were excavated at the Jesse Parker Site to provide a more accurate understanding of site limits.

Analysis of site locations in the project vicinity suggests ridge tops and other level terrain within Area 2 has a moderate probability to contain prehistoric and historic archaeological deposits. Subsurface testing in Area 2 included the excavation of 330 STPs (see Figure 47). None of the STPs excavated outside of the Jesse Parker Site boundary produced cultural material. The typical profile encountered was deflated and included a plow zone (Ap) above sterile subsoil, as recorded in STP 57; summarized below:

#### **Area 2, STP 57**

Ap: 0-7 inches-7.5YR 5/6 strong brown sandy loam

B horizon: 7-10 inches-2.5YR 5/8 red clay

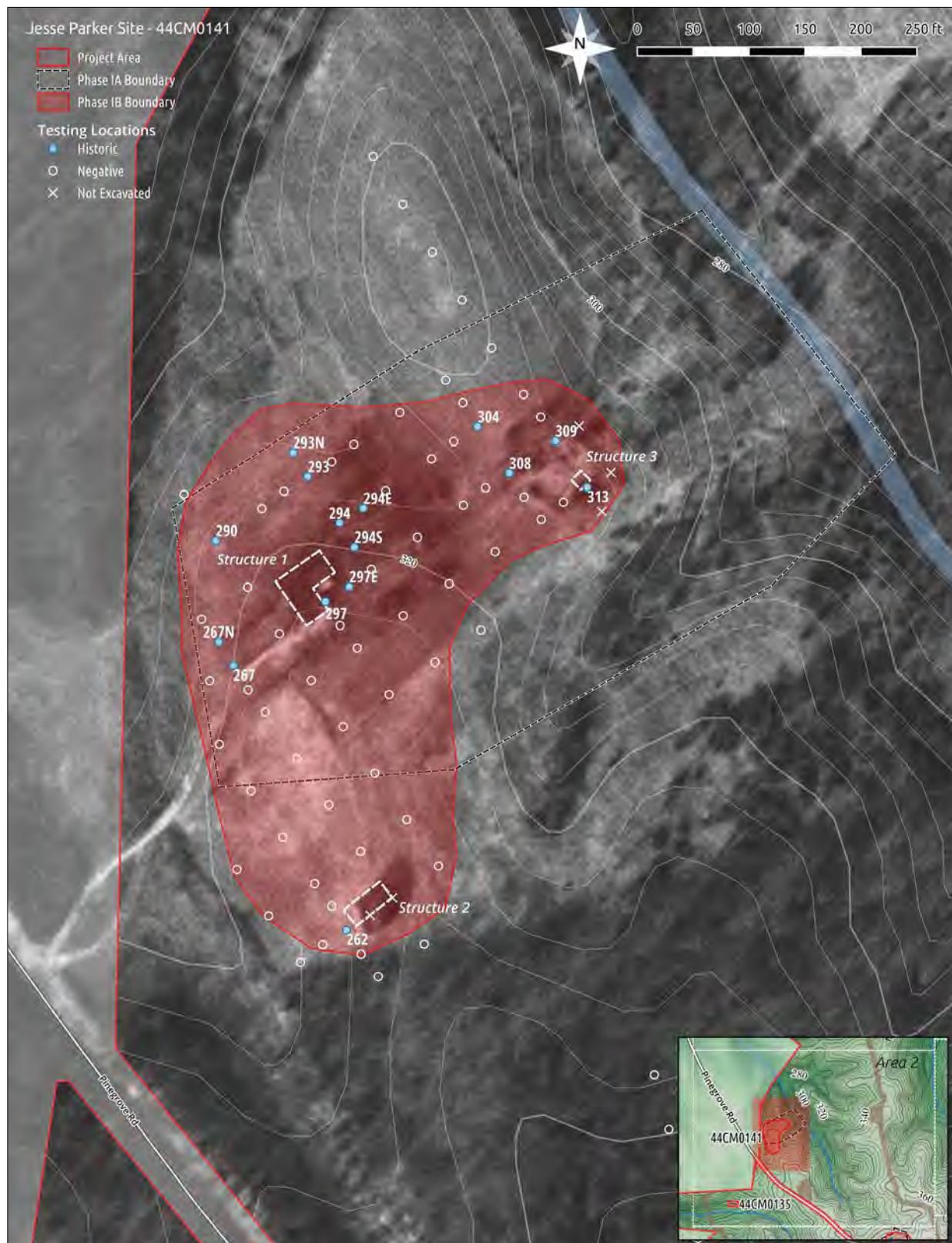
#### **Jesse Parker Site (44CM0141)**

The Jesse Parker Site is located approximately two hundred feet east of Pinegrove Road and includes the remains of a collapsed dwelling and associated outbuildings. The 1864 Gilmer Map of Cumberland County is the earliest to depict a structure in this location. At that time, the farmstead was owned by Jesse Parker. A dwelling and outbuildings are visible in the site location in both the 1947 and 1958 aerial photographs, but the structure is identified as uninhabited in the 1969 Whiteville USGS 7.5 minute quadrangle. As defined during the Phase IA investigation, the site boundary included 4.42 acres and extended into the western waste disposal area. Following the Phase IB investigation, the site boundary was revised to include positive STPs and identified structural remains. The refined boundary includes 2.87 acres (Figure 48).

Visual inspection of the mapped site location revealed the collapsed remains of a frame dwelling (Structure 1), collapsed outbuilding (Structure 2), and the foundation and possible chimney base of a third structure (Structure 3). The dwelling was clad in asphalt building siding with a faux wood shingle texture. This structure appears to have had a standing seam metal roof, stone chimney, and was supported by stone piers and hand hewn sills (Figure 49). Three large white oak trees mark what was once the front yard. A second collapsed structure was identified on the crest of a ridge approximately 300 feet south of the dwelling (Figure 50). This frame structure was set upon a continuous stone foundation and was covered with a standing seam metal roof. No evidence of a chimney or windows were observed in association with this structure. The suspected remains of a third structure were identified in dense brush approximately 250 northeast of the dwelling. This structure location was indicated by what appears to be a continuous stone foundation approximately twelve feet by sixteen feet with a possible chimney base.







**Figure 48: Closeup of Subsurface Testing and Structural Remains at Site 44CM0141 Overlain on 1958 Black and White Aerial Imagery.**





**Figure 49: Stone Foundation, Hand-Hewn Sill, and Asphalt Shingle Siding of the Collapsed Dwelling (Structure 1).**



**Figure 50: Structural Remains of the Collapsed Outbuilding (Structure 2).**

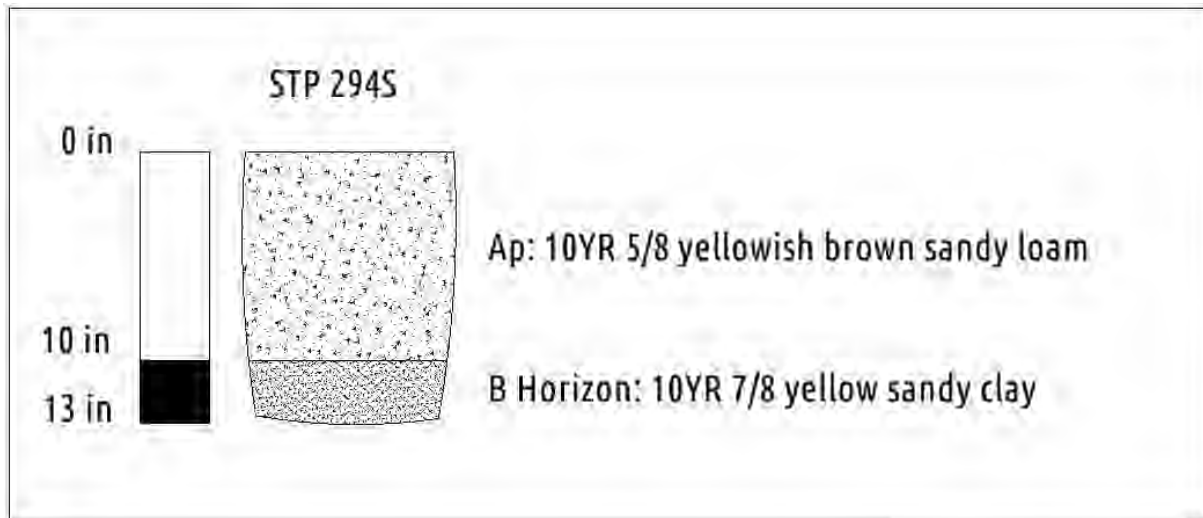


Figure 51: Typical soil profile at the Jesse Parker Farmstead Site (44CM0141).

During the STP survey, seventy five STPs were excavated at site 44CM0141. Fifteen STPs uncovered evidence of cultural activity. The typical soil profile encountered within the site was comprised of a plow zone (Ap) above sterile subsoil as exemplified in the profile of STP 294S, described below and illustrated in Figure 51.

#### Area 2, STP 294S

Ap: 0-7 inches-7.5YR 5/6 strong brown sandy loam

B horizon: 7-10 inches-2.5YR 5/8 red clay

Finds were concentrated in the locations of the three structures identified during the visual inspection of the site. Ten pits excavated in the vicinity of the dwelling (Structure 1) contained a variety of domestic artifacts suggesting an occupation that extends from the late 19<sup>th</sup> through the mid 20<sup>th</sup> century. One positive STP (STP 262) excavated near the southwestern corner of Structure 2 produced an iron spike, 2 wire nails/fragments, and an iron strap. Given the lack of domestic artifacts and its distance from the dwelling, Structure 2 is interpreted as a barn. Four pits in the vicinity of Structure 3 produced artifacts. Finds in this portion of the site included concrete fragments, unidentified nails and glass fragments, and a wagon endgate rod. While the artifacts collected suggest agricultural activities, the foundation and possible chimney base observed in this location during the visual inspection may indicate the presence of a tenant farmer or slave quarters. The artifacts recovered from the site are summarized in Table 7 and described in detail in Appendix 4.

Table 7: Artifacts Recovered from the Jesse Parker Farmstead (44CM0141)

Artifact Type	Ap
<i>Activities</i>	
wagon/buggy parts	1
<i>Architecture</i>	
lime soda (post 1864) windowpane glass	24
spikes	1



unidentified nail(s)	6
wire nail(s) (1890s-present)	6
<b><i>Kitchen</i></b>	
bottle, ABM (post 1907)	1
bottle/jar	12
bottle/jar, chilled iron mold (1880-1930)	1
jar	2
unidentified refined earthenware	1
white milk glass canning jar lid liner fragment	1
<b><i>Unidentified</i></b>	
unidentified ferrous metal	19
unidentified non-ferrous metal	2

### ***Area 3***

Bisected by Pinegrove Road and Miller Lane, Area 3 was the largest of the study areas. It includes approximately 215 acres of planted pine and mixed deciduous forest, covering the southwestern portion of the project area (Figures 52 and 53). Soils within the area were comprised of Appling fine sandy loam (1B), Appling-Helena complex (2C), Cecil sandy loam (6B), and Poindexter-Wedowee complex (32C). Appling was the dominant soil type in Area 3 and were primarily encountered in the areas with the highest potential for archaeological deposits. Appling-Helena complex and Poindexter-Wedowee complex were typically encountered on the slopes of drainages (see Figure 53). Elevations within Area 3 range from 384 feet a.m.s.l. near the intersection of Pinegrove Road and Miller Lane along the southern boundary of Area 3, to 288 feet a.m.s.l. in the drainage that passes through the southwestern boundary of the study area (Figure 54).

The portion of Area 3 located southwest of Pinegrove Road is drained by two unnamed tributaries to Muddy Creek, west of the project boundary. East of Pinegrove Road, drainage is to the north, through an intermittent tributary to Muddy Creek, and south, to Maple Swamp Creek.

At the time of this investigation, the majority of Area 3 was covered with mature, planted pine forest, with the exception of the southernmost portion of the study area and the area surrounding Buena Vista/Jeffries Site (44CM0136) (see Figure 53). Site 44CM0136 was identified north of a bend in Pinegrove Road and included an “L” shaped, stone lined cellar, a timber-framed outbuilding, a concrete silo base, and what was interpreted as a hog scalding foundation.





**Figure 52: Mixed Deciduous (left) and Planted Pine (right) Forest Surrounding a Former Staging Area (center) in Area 3.**

Road traces, a boxwood row, and shallow ditches were also noted within the site boundary. Structural and household debris was identified within the cellar hole, but very little of the superstructure remained and a local informant indicated that the dwelling was dismantled and moved to England. A date for the deconstruction of the house was not given, but an electrical pole located west of the cellar indicates the structure was electrified and likely occupied into the second half of the twentieth century.

Subsurface testing in Area 3 included the excavation of 652 STPs in moderate and high probability areas. The boundary of site 44CM0136 was refined to reflect the extent of subsurface deposits as well as visible surface features and the locations of historic structures indicated in historic aerial photographs. Additionally, one previously unrecorded historic site was recorded along the southern boundary of the study area. Both sites are described in greater detail later in this report. Other finds included six isolated findspots corresponding to the locations of STP 3-T4-18, STP 3-232, STP 3-314, STP 3-371, STP 3-402, and STP 3-560 (see Figure 54). Finds included 1 lime soda windowpane fragment (STP 3-T4-18), 2 quartz flakes (STPs 3-232 and 314), 1 unidentified nail (STP 3-371), 1 Stanley projectile point fragment (STP 3-402), and 1 quartzite scraper (STP 3-560).

As mentioned previously, soil types were consistent across most of the testable areas in Area 3 (Appling fine sandy loam) and the soil profiles throughout the area were also relatively consistent. The typical profile encountered in Area 3 included a plow zone (Ap) above sterile subsoil (B horizon). Hues of the plow zone ranged from, 7.5YR to 10YR with values of 4 or 5



and chroma ranging between 4 and 8. The profile of STP 560, summarized below, was typical of those encountered throughout the study area.

**Area 3, STP 560**

Ap: 0-7 inches-10YR 5/6 yellowish brown sandy loam

B horizon: 7-10 inches-7.5YR 5/6 strong brown sandy clay loam





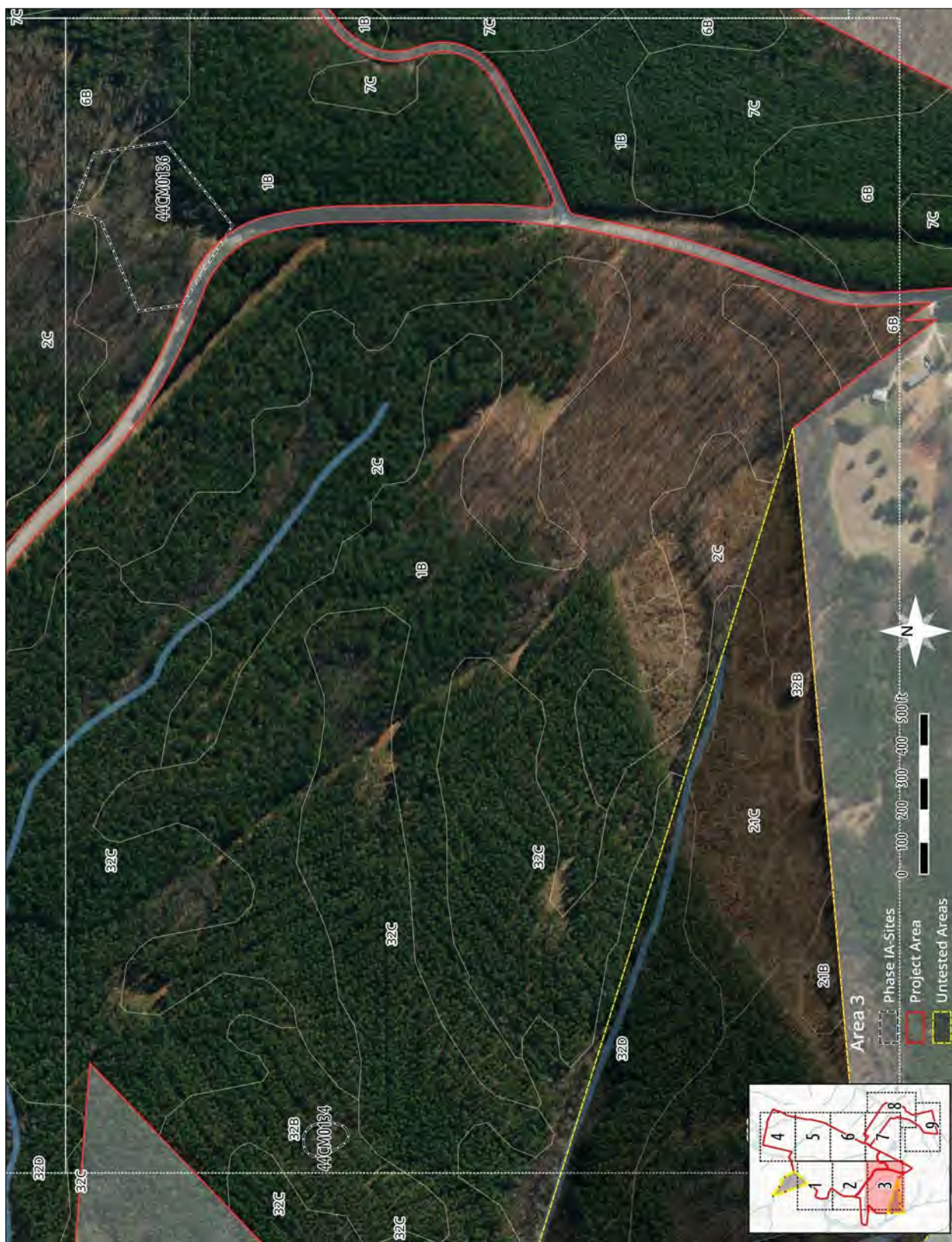


Figure 53: Most Recent Aerial Imagery of Area 3 with Soils Overlay and Phase IA Site Boundaries.



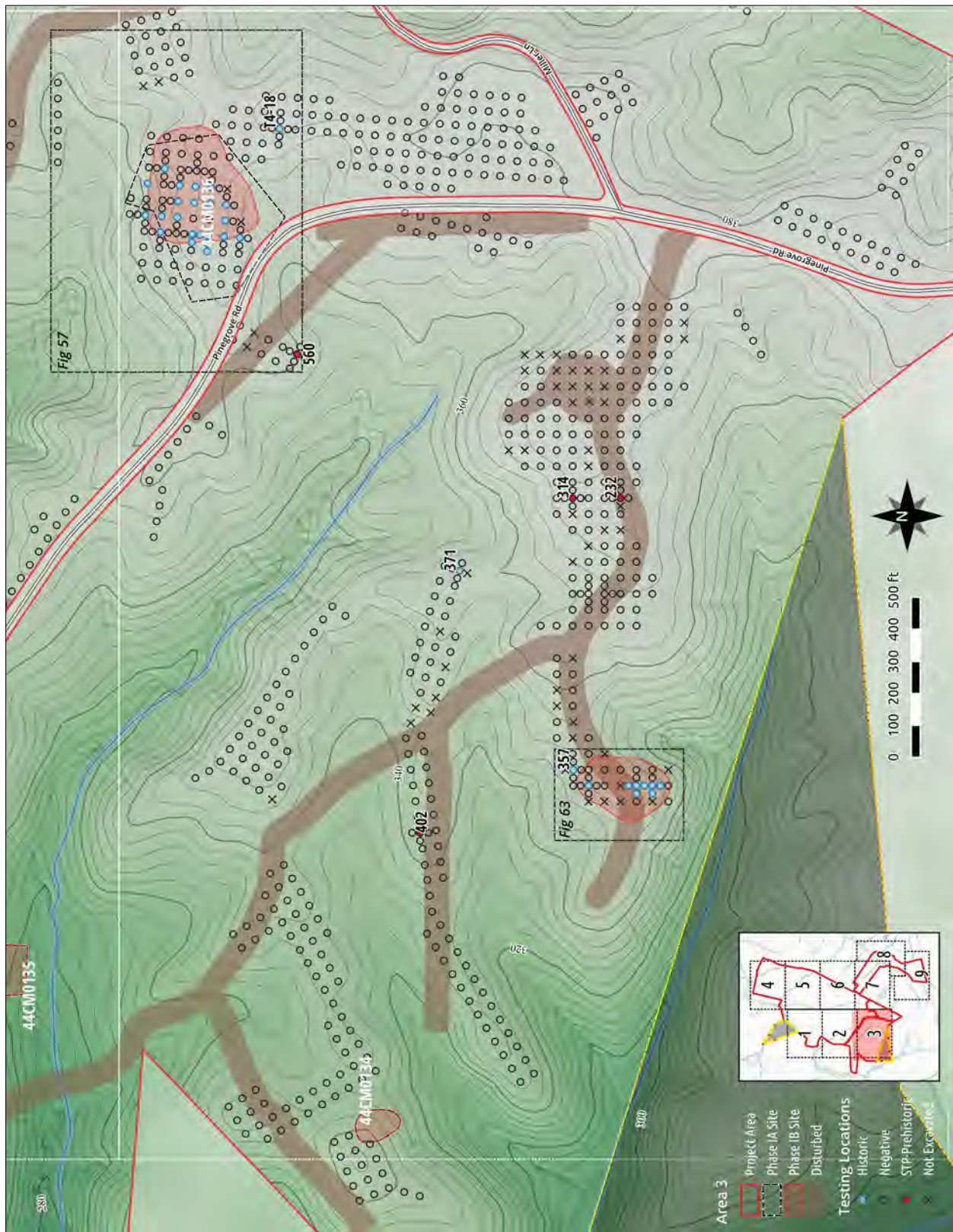


Figure 54: Topographic map showing Phase I testing locations, existing disturbances (brown), and original (black) and revised (red) site boundaries in Area 3.

### *Buena Vista / Jeffries Site (44CM0136)*

Visual inspection of the mapped location of site 44CM0136 found no change from the site description provided in the Phase IA report. The site is accessed by a gravel drive leading from a bend in Pinegrove Road. A telephone pole and “L-shaped” cellar hole (Figure 55) mark the former location of the dwelling. Surrounding the former dwelling location is overgrown pasture with thickets of *Ailanthus*, Walnut trees, and daffodils scattered throughout (Figure 56). Throughout the area, stone piers, piles of stone, a circular concrete foundation, and rotting structural timbers appear to mark the locations of former outbuildings. Notably, for a site that was occupied for at least one hundred years, it appeared remarkably devoid of trashpiles or surface scatters of household debris, or any evidence of the 2-story structure that once stood on the site. The exceptions being a few items that have been dumped in the cellar hole.

Conversations with a machine operator working on the property provided some clarity concerning the current location of the house that once stood on the property. According to the contractor, a long-time resident of Powhatan County, and former owner of other portions of the Green Ridge property, the house was occupied until 1975, when it was dismantled and reassembled on a new site on the west side of Ballsville Road in Powhatan County, approximately four miles east of its former location.

Mr. Palmore’s account is corroborated by newspaper reports from the period. An undated article (circa 1980) by Virginia Churn titled “Piece by Piece, Plantation Reassembled” in the Richmond Times-Dispatch states that the house that once stood at the Jeffries Site, known as Buena Vista, was dismantled by Mr. and Mrs. Warren West in the late 1970s, during their relocation and reconstruction of Edgemont, the home of James McLaurine (Jeffries’ father-in-law) and birthplace of John Singleton Mosby. Edgemont, which once stood near the eastern boundary of the project area, was also dismantled and relocated to Ballsville Road by the Wests around the same time. The materials obtained from the Jeffries Site were used by the Wests to reconstruct an ell that was part of the original design of Edgemont, but was removed when the house fell into a state of disrepair in the first half of the twentieth century.

A total of 86 STPs were excavated within and immediately adjacent to the Phase IA boundary of site 44CM0136 (Figure 57). Soil profiles in the central portion of the site typically included a Fill layer (Fill 1) likely dating to the site occupation, encountered above an E horizon, which was underlain by sterile subsoil (B horizon). Along the site perimeter, profiles were variable and included a plowzone (Ap), and in some cases a buried plow zone (Apb), above subsoil. The profiles of STP 3-119 and 3-145 were typical of the stratigraphic profiles encountered in the central portion of the site and along the northern site perimeter, respectively (Figure 58). The site boundary was revised to include positive STPs and structural remains and includes approximately 2.23 acres.

One hundred twenty-nine artifacts were recovered from 20 positive STPs during the Phase IB survey of site 44CM0136. Temporally diagnostic artifacts included cut (post 1790) and wire (post 1890) nails, lime soda windowpane fragments (post 1864), Automatic Bottle Machine glass fragments (post 1907), and pearlware (1775-1830) sherds. The variety of artifacts recovered from the site is typical of rural domestic farmsteads dating from the nineteenth and twentieth centuries. The artifacts recovered from the site are summarized in Table 8 and described in detail in Appendix 4.







**Figure 55: Cellar Hole at the Jeffries Site (44CM0136).**



**Figure 56: Stone Pile with daffodils at the Jeffries Site (44CM0136).**





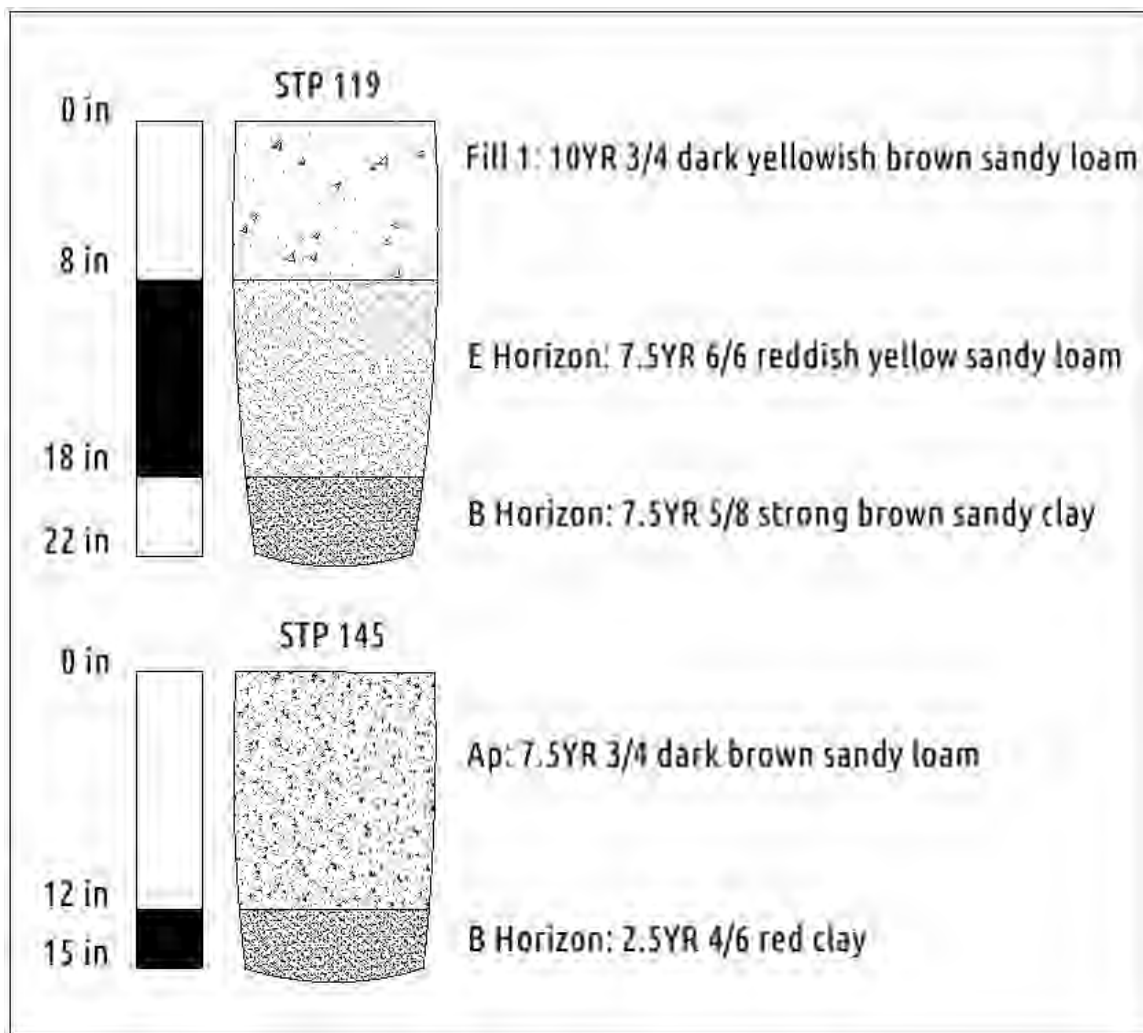


Figure 58: Typical Soil Profiles at the Jeffries Site (44CM0136).

Table 8: Artifacts Recovered from the Jeffries Site (44CM0136)

Artifact Type	Ap	Apb	Fill 1
<b>Activities</b>			
chain			1
<b>Architecture</b>			
brick			13
cut nail(s) (1790-present)			1
cut nail(s), machine headed (1825-present)			3
lime soda (post 1864) windowpane glass	1	1	29
unidentified nail(s)	1		8
wire nail(s) (1890s-present)	4		12
wrought nail(s)	1		
<b>Clothing</b>			
button(s)			1



<b><i>Kitchen</i></b>		
bottle/jar	1	15
bottle/jar, ABM (post 1907)	1	
canning jar		9
glassware		1
pearlware (1775-1830)		2
unidentified coarse earthenware	1	
unidentified refined earthenware	2	1
unidentified stoneware		2
white milk glass canning jar lid liner fragment		1
<b><i>Organic</i></b>		
bone		7
<b><i>Unidentified</i></b>		
unidentified ferrous metal		9
unidentified glass		1

#### **Rockpile Site (44CM0144)**

Site 44CM0144 occupies a narrow ridge along the southern boundary of Area 3 (see Figure 54). The site location was originally flagged as a location of interest during the visual inspection of the area, based on a change in the surrounding vegetation and what appeared to be the remains of two separate structures. An old logging road that extends from Pinegrove Road to a former



**Figure 59: Typical Environmental Conditions at Site 44CM0144.**

staging area to the west, bisects the site, and may follow the old roadbed that once provided access to the site. At the time of this investigation, the area surrounding the site was covered with thinned, planted pine forest and in many areas the understory was sparse and allowed for relatively good visibility (Figure 59). During the initial walkover of the property, a small pile of stone was noted along the north side of the logging road and a dense thicket of Mock Orange (*Philadelphus coronarius*) and small depression filled with stones of a sufficient size to be the remains of a stone chimney were noted on the south side of the road approximately 150 feet southwest of the stone pile.





During the STP survey, approximately twenty STPs were excavated in the area surrounding the two suspected structures. A total of eight artifacts, including whiteware, glass bottle and windowpane fragments, and nails, were recovered from the general area, but testing missed both of the suspected structure locations and provided little information about intra-site activities. The soil profile encountered in the STPs nearest to the structures indicate a high degree of integrity, including an intact Fill that dates to the site occupation. Likewise, the presence of surface features, suggests post occupation disturbance has been minimal. The profile of STP 3-370N, located between the two suspected structures was typical of pits excavated in the area. Its profile is summarized below and illustrated in Figure 60.

### Area 3, STP 370N

Fill 1: 0-6 inches-10YR 3/3 dark brown silty loam

B horizon: 6-9 inches-10YR 6/6 brownish yellow silty clay

At the conclusion of the STP survey the suspected site was cleared of vegetation and the STP grid was expanded onto the side slope of the ridge to provide better coverage of the depression and stones (Figure 61). Later, the entire area between the two suspected structures was metal detected. The metal detector survey area extended approximately 225 feet north to south by 100 feet east to west and identified a general scatter of metal objects across most of the survey area (Figure 62). Five hundred fourteen metal detector strikes were identified and mapped within the survey area and 139 were excavated (Figure 63). The boundaries for site 44CM0144 encompass structural remains, positive STPs, and the extent of the metal detector strikes and include approximately 1.01 acres.

A total of 205 artifacts were recovered from site 44CM0144 during the shovel testing and metal detector surveys. Temporally diagnostic artifacts included cut (1790-present) and wire (1890s-present) nails, lime soda windowpane fragments (1864-present), bottle/jar fragments produced with an Automatic Bottle Machine (1907-present), and whiteware (1820-present) sherds. The assemblage recovered from site 44CM0144 suggests it includes the remains of a dwelling with an occupation dating to the late 19<sup>th</sup> / 20<sup>th</sup> century. The artifacts recovered from the site are summarized in Table 9 and described in detail in Appendix 4.

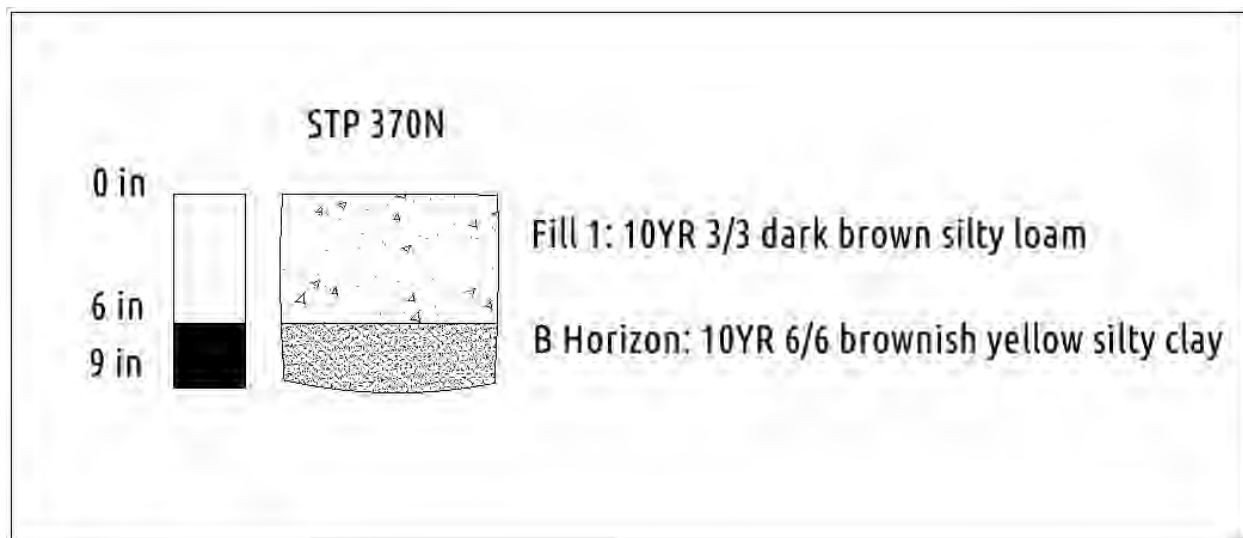


Figure 60: Typical Soil Profile at Site 44CM0144.





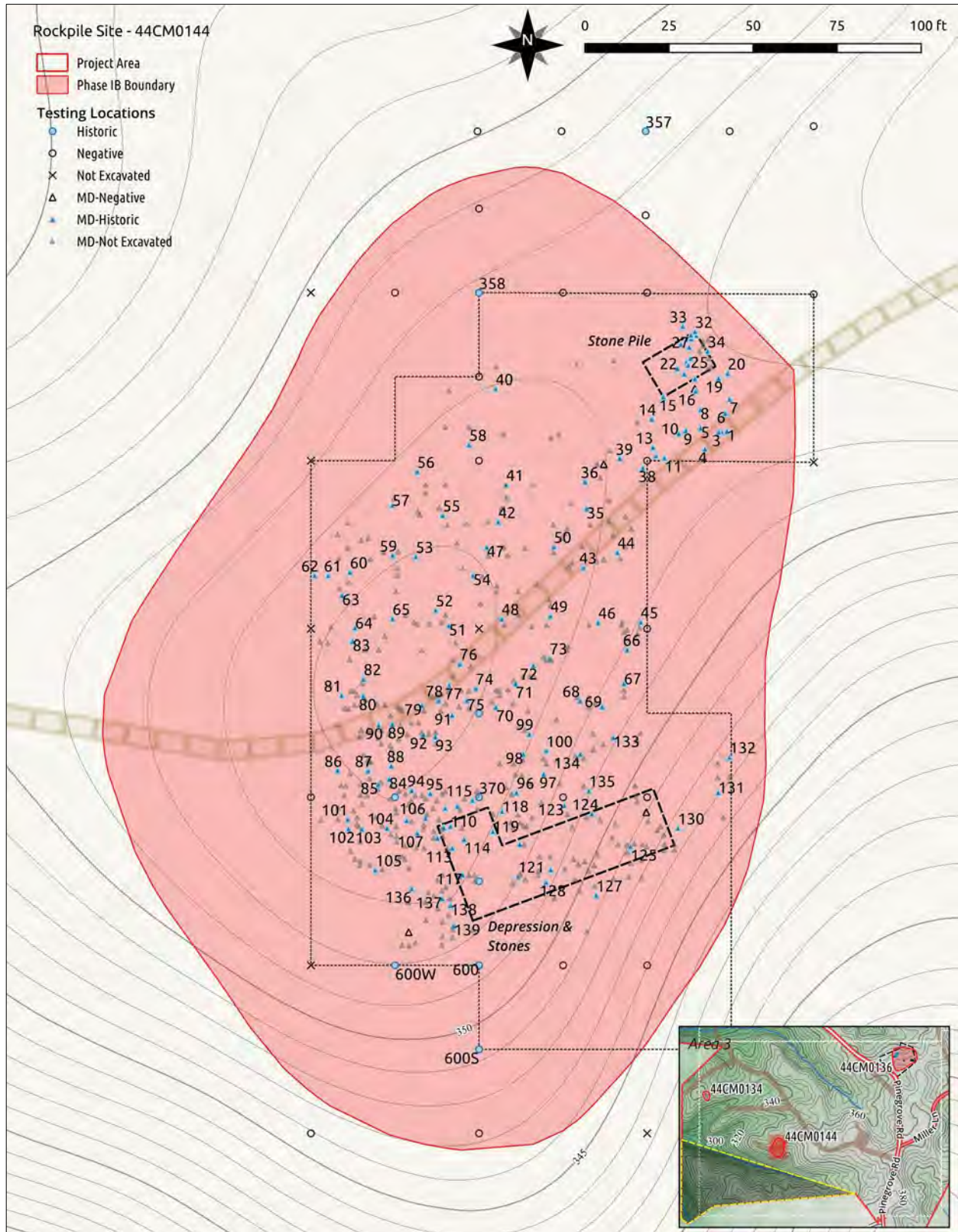
**Figure 61: Survey Conditions for Metal Detector Survey at 44CM0144.**



**Figure 62: Metal Detector Strikes at 44CM0144.**







**Figure 63: Closeup of Subsurface Testing, Site Boundary, Metal Detector Survey Area, and Structural Remains at Site 44CM0144 with One Foot Contours.**



**Table 9: Artifacts Recovered from Rockpile Site (44CM0144)**

Artifact Type	Ap	Fill 1
<b>Activities</b>		
axe head	2	
bolt	1	
chain link	2	
cultivator shank	3	
flatiron	1	
hoe	1	
horseshoe	9	
pliers	1	
plowshare	3	
stirrup	1	
wingnut	1	
<b>Architecture</b>		
brick	2	
cut nail(s) (1790-present)	2	
door latch	1	
lime soda (post 1864) windowpane glass	4	2
pintle hinge	1	
spikes	2	
strap hinge	8	
unidentified nail(s)	8	1
wire nail(s) (1890s-present)	61	5
wrought nail(s)	1	
<b>Arms</b>		
shotgun shell		1
<b>Clothing</b>		
scissors	1	
<b>Furniture</b>		
steamer trunk corner guard		2
<b>Kitchen</b>		
bottle	1	
bottle, ABM (post 1907)	2	
bottle/jar	2	1
bottle/jar, ABM (post 1907)	2	
canning jar		1
unidentified refined earthenware	2	4
unidentified stoneware	1	
whiteware (post 1820)		1
<b>Personal Items</b>		
boot spur rowel	1	
<b>Unidentified</b>		
unidentified ferrous metal	55	4
unidentified non-ferrous metal	1	



#### **Area 4**

Area 4 encompasses approximately 136 acres of planted pine and mixed deciduous forest in the northeastern corner of the landfill property (Figure 64). Elevations in the study area range from 336 feet a.m.s.l. along the southeastern boundary to 244 feet a.m.s.l. in the wetlands near its southwestern edge (Figure 65). Similar to other study areas, the highest elevations are concentrated in the central portion of Area 4, along the crest of a broad upland ridge. These areas were covered in planted pine forest at the time of this survey, with mixed deciduous forest found in the lower elevations of the draws and drainages along the perimeter of the ridge. Enon-Helena complex (16B), Cecil sand loam (6B), Poindexter-Wedowee complex (32B), and Helena sandy loam (21B) make up the soils along the ridge crest and have the greatest potential for archaeological sites.

One archaeological site (Ammoynett– 44CM0140) was identified in the southeastern portion of Area 4 during the Phase IA investigation. The Ammoynett House Site (44CM0140) is indicated on the 1864 Gilmer Map of Cumberland County. However, it is not visible on the 1947 or 1958 aerial photos of the project vicinity and it is not noted on the 1969 Trenholm USGS 7.5 minute quadrangle. A two-story stone/brick chimney is all that remains of the former dwelling.

During the Phase IB investigation, 441 STPs were excavated in Area 4. The typical soil profile was consistent with other portions of the project area and included a plow zone (Ap) above sterile subsoil as represented by the profile of STP 127, summarized below.

#### **Area 4, STP 127**

Ap: 0-7 inches-10YR 5/4 yellowish brown sandy loam

B horizon: 7-10 inches-10YR 5/8 yellowish brown sandy clay loam

Four isolated finds were recovered from Area 4 during the STP investigation. STPs 4-130 and 4-208 each contained a single sherd of refined white earthenware. A quartz Clarksville projectile point (Late Woodland, 1000-1600AD) was found in STP 4-127; and a quartz Rossville projectile point (Early Woodland, 600BC to 700AD) was recovered from STP 4-21.

#### **Ammoynett Site (44CM0140)**

The Ammoynett Site, or Chimney in the Woods occupies the eastern half of a narrow ridge in the southeastern quadrant of Area 4 (see Figure 65). The site's name comes from the surname noted in this approximate location on the 1864 Gilmer map of Cumberland County (see Figure 6). Although a clearing in the vegetation is visible immediately west of the site, no structure is visible in this location on either the 1947 or 1958 aerial images and the driveway connecting the site to Miller Lane does not appear to be in use at that time.

The site is indicated by a two-story fieldstone and brick chimney (Figure 66). Visual inspection of the area presumably occupied by the former structure uncovered no surface evidence of the foundation or other artifacts related to the site occupation. The eastern limits of the former domestic area appear to be defined by the landform and a series of large cedar trees. An existing trail, that likely follows the original driveway seems to demarcate the western limits of the domestic area. A small scatter of household debris that included a plastic shampoo bottle, glass deodorant bottles, and aerosol cans was observed along the slope southeast of the chimney. However, given the date of abandonment indicated by historic aerial photos, it seems likely this is the product of post occupational deposition.







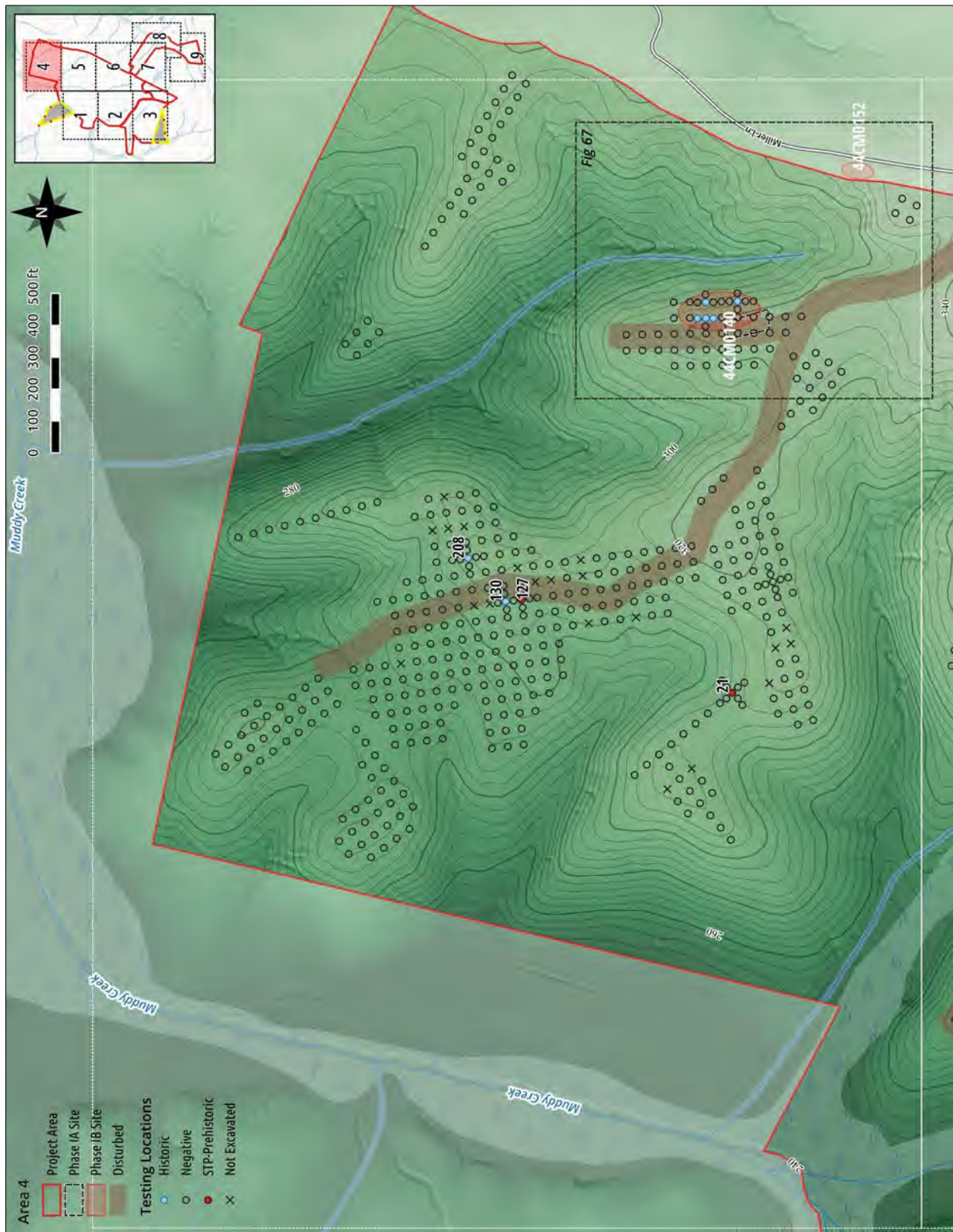


Figure 65: Topographic map showing Phase I testing locations and existing disturbances (brown) in Area 4.





**Figure 66: Standing Chimney and Current Conditions at Site 44CM0140.**

The original site boundaries were defined by the landform and extended approximately 150 feet north to south by 50 feet east to west. During the shovel test survey, fifty-two STPs were excavated within and around the Phase IA site boundary (Figure 67). The typical soil profile within the suspected domestic area included a fill (Fill 1) above sterile subsoil. The profile of STP 114, located in the center of the site, summarized below and illustrated in Figure 68, exemplifies the typical soil profile at 44CM0140.

#### **Area 4, STP 364**

Fill 1: 0-7 inches-10YR 5/4 yellowish brown sandy clay loam

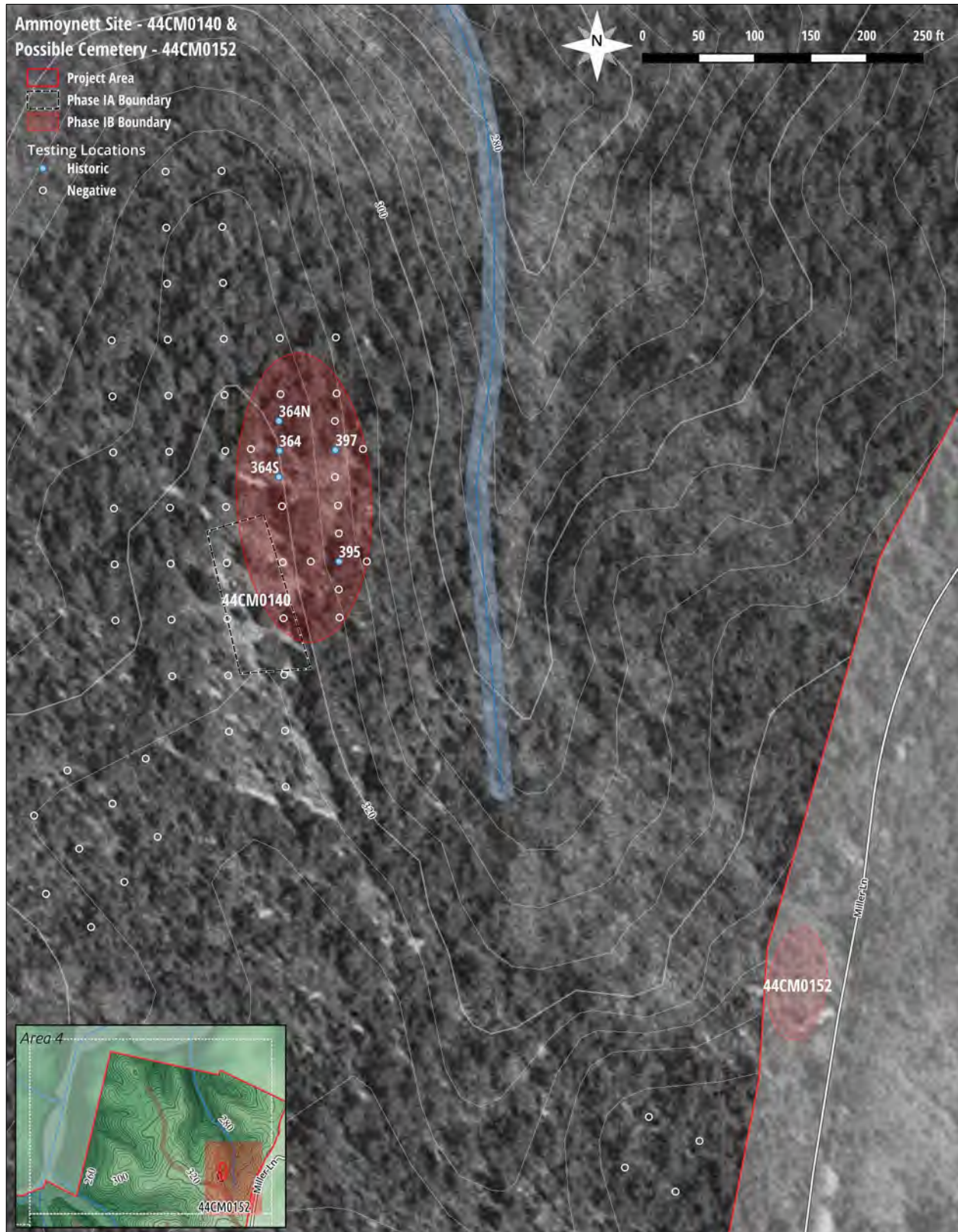
B horizon: 7-11 inches-5YR 5/8 yellowish red sandy clay

Five STPs produced a total of ten artifacts from the fill layer encountered in the former domestic area. Finds from the Fill 1 layer included 5 lime soda (post 1864) windowpane fragments, 1 wire (post 1890) nail, 1 contact mold (1810-1880) bottle fragment, 1 canning jar fragment, 1 pearlware (1775-1830) sherd, and 1 unidentified ferrous metal fragment (see Appendix 3). Site 44CM0140 is interpreted as the remains of a 19<sup>th</sup>/early 20<sup>th</sup> century dwelling.

Positive shovel test pits indicate subsurface deposits related to the the historic site occupation extend north and east of the previous site boundary (see Figure 67). The revised boundary for the Amoynett Site / Chimney in the Woods measures approximately 250 feet north to south by 120 east to west and includes 0.55 acres.







**Figure 67: Closeup of Subsurface Testing and Site Boundary at Site 44CM0140 with Four Foot Contours.**



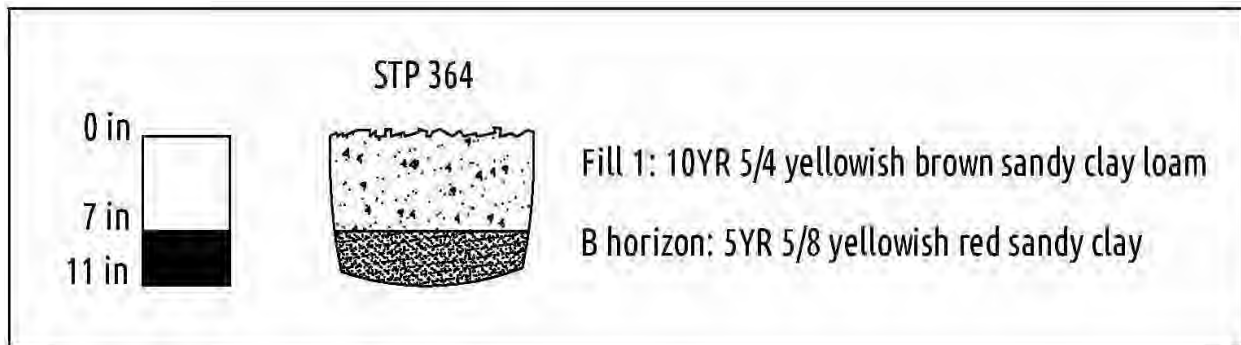


Figure 68: Typical Soil Profile at Site 44CM0144.

#### Possible Cemetery (44CM0152)

Site 44CM0152 was identified outside of the eastern project boundary based on visual inspection while walking along an existing trail in the early Spring. The site appears to be located on the western side of Miller Lane, immediately outside the eastern project boundary and is indicated by a concentration of daffodils and lilies located in the vicinity of a surface scatter of stones (Figure 69). There is no observed pattern to the stones, nor are there any indications of surface depressions and it is possible that the site might be the former location of a dwelling. However, the site sits approximately four or five feet above the roadway and there is no evidence of a driveway.

The site is situated on a small ridge that extends into the project area in a southwesterly direction. Four STPs were excavated on the portion of the ridge within the project limits, but found no evidence of historic activity, suggesting the site does not extend into the project area (see Figure 65).



Figure 69: Daffodils and Lilies at Site 44CM0152



### **Area 5**

Study Area 5 includes two ridges that enter the project area along the eastern property boundary and extend in the northwesterly direction, terminating at a drainage northwest of the study area. Located in the eastern central portion of the project area, Area 5 includes approximately 181 acres of planted pine forest. Formerly managed by a timber company, bulldozer roads provide access to all upland portions of Area 5 which appear to have been repeatedly harvested (Figure 70). Thin strips of deciduous forest have been preserved and define drainages in the most recent aerial imagery (Figure 71). Poindexter-Wedowee complex (32D) and Helena sandy loam (21C) are found along the side slopes of the ridges and Enon Helena complex (16B) and Helena sandy loam (21B) were found in the highest elevations with the lowest relief.

Elevations in Area 5 range between 352 feet and 252 feet a.m.s.l. (Figure 72). Two hundred fort-six STPs were excavated in this study area during the Phase IB investigation. Soil profiles were consistent with other portions of the property and consisted of a plow zone averaging six inches in depth above sterile subsoil. Finds included 1 cut nail fragment (STP 5-167) and 1 ABM glass bottle fragment (STP 5-97).



**Figure 70: Bulldozed Logging Road in Area 5.**







Figure 71: Most Recent Aerial Imagery of Area 5 with Soils Overlay.





Figure 72: Topographic map showing Phase I testing locations in Area 5.



## **Area 6**

Area 6 also covers the eastern central portion of the landfill property. The study area includes approximately 115 acres, primarily covered in planted pine forest. It is bisected by an existing dirt roadway most recently used for timber harvesting. The timber plantation covering Area 6 and the heavily disturbed, former timber staging areas near Miller Lane and along the northern boundary of Area 6 are visible in the most recent aerial imagery (Figure 73). Cecil sandy loam (6B) is found on most of the ridges within the study area. Most of the slopes in the area are made up of Cecil sandy clay loam (7C).

Elevations within Area 6 range from 360 feet a.m.s.l. along Miller Lane to 295 feet a.m.s.l. in a drainage along its northern boundary (Figure 74). Level terrain was confined to a narrow ridge in the northern half of the study area and the terminus of a southeast/northwest trending ridge along the southern boundary. Drainage is from southeast to northwest through intermittent drainages that flow into an unnamed tributary to Muddy Creek, located in the central portion of the Green Ridge property. Modern ground disturbances were extensive and much of the testable area along the northern ridge has been compromised by the construction of the logging road and drainage cuts on either side of the road.

One archaeological site and one area of archaeological interest were identified within Area 6 during the Phase IA investigation. Named for the former property owners, the Hobson Site (44CM0139) was believed to include the remains of a nineteenth century domestic complex. The Hobson Cemetery is a location of archaeological interest. Deeds of sale mention a reservation of burial and visitation rights for one of the three parcels included in the Hobson property (noted in yellow, Figure 75). Deeds do not specifically reference the location of the family cemetery within the 55 acre parcel and its exact location is not known. Phase IA investigations identified a finger ridge extending southwest from the mansion thought to be the most likely location for the cemetery. The suspected location of the Hobson Cemetery is outlined in blue in Figures 73 through 75.

During the Phase IB investigation, 239 STPs were excavated in Area 6 (see Figure 74). STPs excavated in close proximity to the existing road were heavily disturbed and often exhibited subsoil at the ground surface. Ridge crests were also deflated, typically with a plow zone 2 to 4 inches in depth above sterile subsoil. In areas with 2-4% slopes adjacent to ridge crests and less eroded profile was encountered, as seen in STP 23, summarized below:

### **Area 6, STP 23**

Ap: 0-6 inches-7.5YR 5/8 strong brown sandy clay loam

B horizon: 6-9 inches-5YR 5/8 yellowish red sandy clay

Subsurface testing confirmed the mapped location of the Hobson Site (44CM0139) and identified two additional isolated finds. STP6-23, located between the Hobson Site and the suspected location of the Hobson Cemetery, contained 1 wire nail, additional testing in the vicinity of the shovel test produced no additional finds. STP 49 was located west of the logging road in an area noted for a change from the surrounding vegetation. It contained one brick fragment. Often dwellings of slaves quarters and the dwellings of those of limited economic standing are represented by low density artifact scatters. Consequently, the area in the immediate vicinity of the positive STP was scanned with a metal detector to determine if there was any additional evidence of a possible structure in this location. However, metal detection of the area produced no additional finds.





Figure 73: Most Recent Aerial Imagery of Area 6 with Soils Overlay.



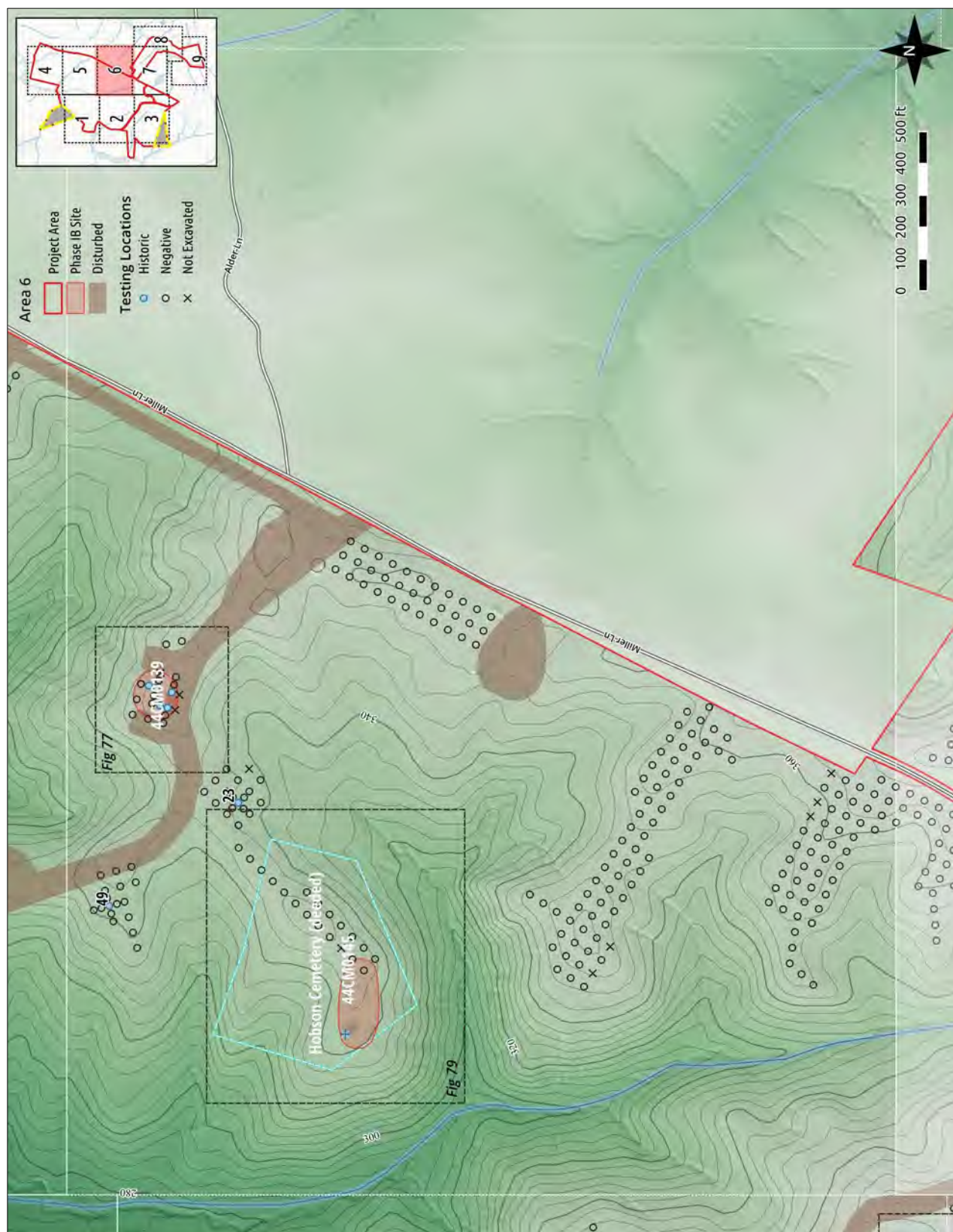


Figure 74: Topographic map showing Phase I testing locations, existing disturbances (brown), and revised (red) and original (black) site boundaries in Area 6.







Figure 75: Hobson Cemetery Parcel Boundary and Possible Cemetery Location in Relation to Hobson Site (44CM0139) on Most Recent Aerial Imagery .





### Hobson Site (44CM0139)

The mapped location of the Hobson Site measures approximately 115 feet north to south by 165 feet east to west and includes a rectangular cellar hole and a probable ice house remnant overgrown with periwinkle (Figure 76). The southern boundary of the site is marked by the logging road mentioned previously, which passes within fifty feet of a cellar hole. A dirt track roughly following the same alignment is visible in the 1947 and 1958 aerial photographs of the project vicinity (Figure 77). In the vicinity of the site, the modern road grade appears to be twelve to eighteen inches below the original ground surface. Additional, perpendicular cuts approximately fifty feet east and west of the cellar hole provide drainage for the logging road and likely mark the extent of undisturbed deposits associated with the domestic occupation. The northern boundary of the site appears to be defined by the landform.

The cellar hole at the Hobson Site is approximately four feet deep and filled with brick rubble. Although the ground surface within the site is obscured by a dense carpet of periwinkle, closer inspection of the perimeter of the cellar hole revealed brick scatters along the eastern and western walls that may represent the remains of gable chimneys. No evidence of post-occupational dumping was noted in the site location.

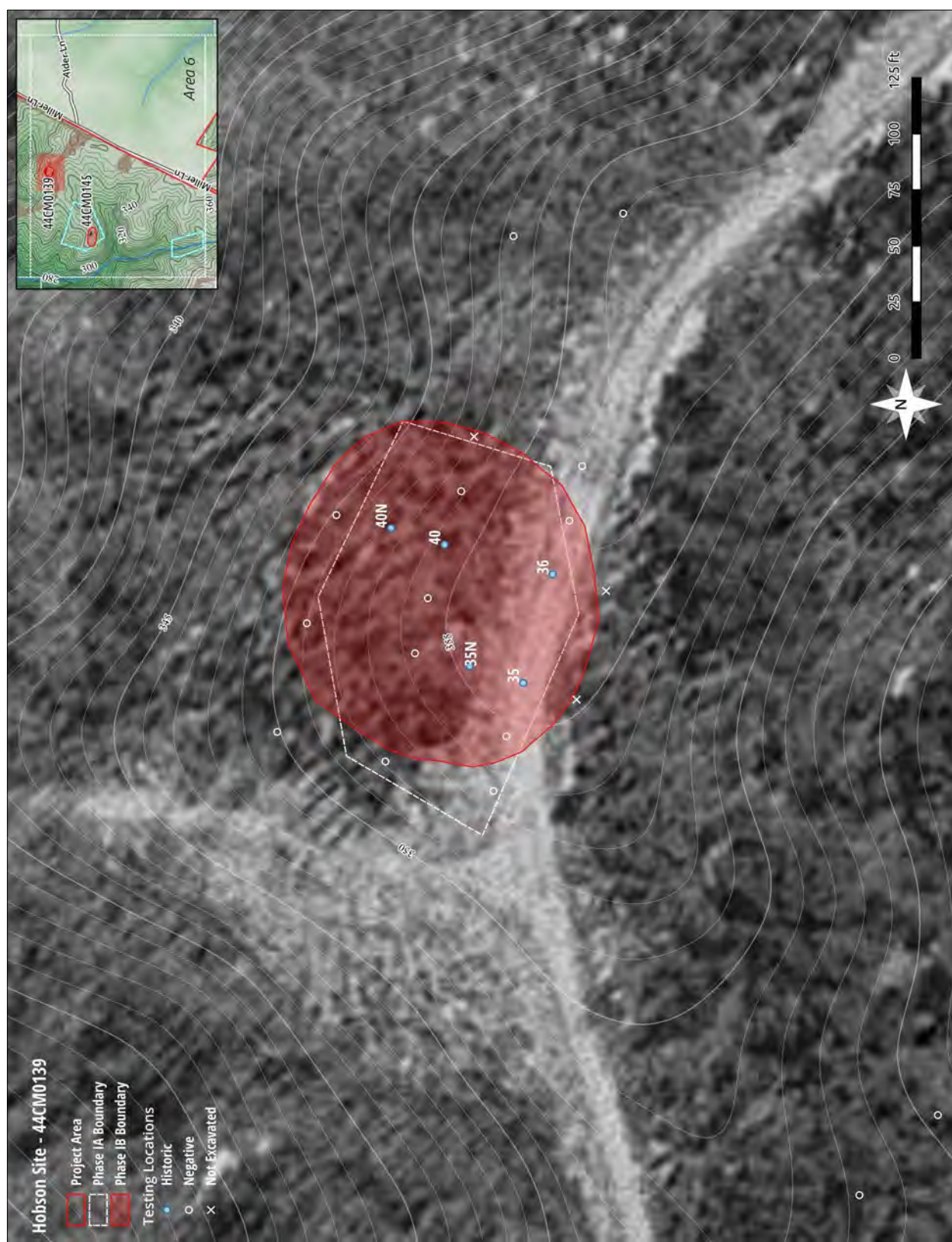
Eighteen STPs were excavated in and around the site boundary during the Phase IB investigation. The typical soil profile encountered within the site included a Fill layer (Fill 1) above sterile subsoil (B horizon). The profile of STP 6-35 is representative (Figure 78).

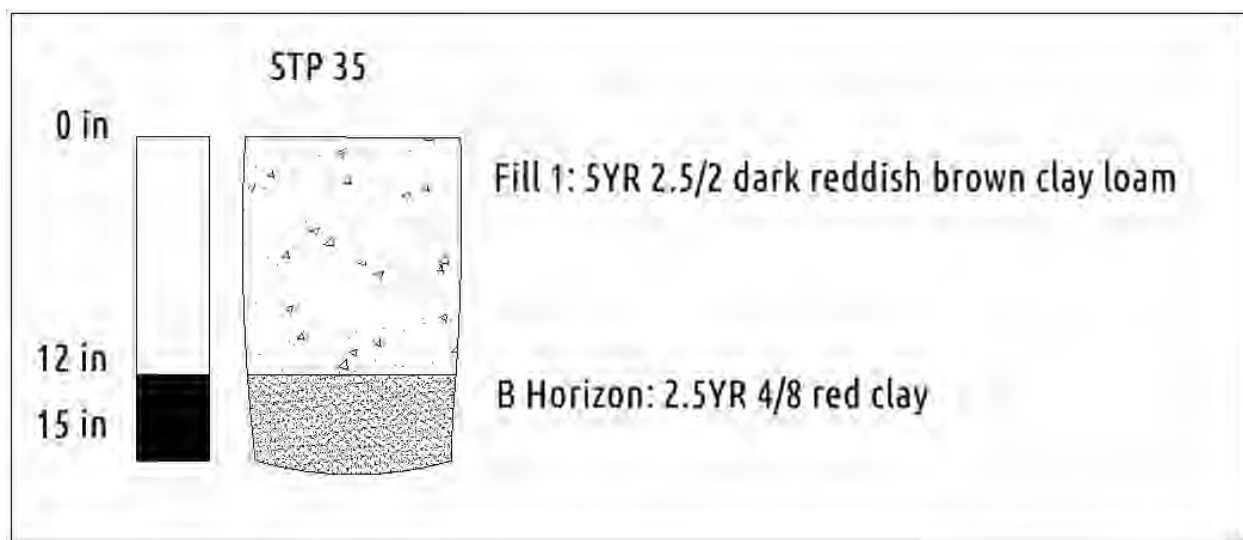


**Figure 76: Cellar Hole at the Hobson Site 44CM0139.**









**Figure 78: Typical Soil Profile at Hobson Site 44CM0139.**

Five STPs produced cultural material from the fill layer covering the area surrounding the cellar. It is unclear if the Fill represents occupation or demolition of the dwelling. Finds from the Fill 1 layer included 4 lime soda windowpane fragments, 14 unidentified ferrous metal fragments, 1 unidentified non-ferrous metal fragment, and more than one hundred eleven bricks/fragments (see Appendix 4). Site 44CM0139 is interpreted as the remains of a 19<sup>th</sup>/20<sup>th</sup> century dwelling.

The revised boundary of site 44CM0139 measures approximately 125 feet east to west by 125 feet north to south and encompasses approximately 0.38 acres.

#### *Hobson Cemetery & Site 44CM0145*

The referenced location of the Hobson Cemetery is approximately 600 feet southwest of the Hobson Site and includes 6.7 acres. The area is at the southern extent of a narrow finger ridge that runs in a southwesterly direction from the Hobson Site (see Figure 74). Visual inspection of the area revealed varying degrees of disturbance along the ridge crest; which was previously used as a temporary road during the selective thinning of the planted pine forest. In places where subsoil is close to the surface and water ponds, tire ruts from four to eight inches deep were observed. The ground surface throughout the cemetery location has been heavily altered by modern logging and rows of trees appear to be separated by furrows, similar to, but on a larger scale than the ground surface in a plowed field. No above-ground indications of human burials were observed during the visual inspection of the possible Hobson Cemetery location.

A total of sixteen STPs were excavated along the crest of the ridge and found no evidence of cultural activity. Subsurface testing also demonstrated varying degrees of disturbance resulting from previous logging operations.

Following the STP survey, a trench was cut along the ridge crest in an attempt to identify graveshafts cut into sterile subsoil. The trenching exercise involved the mechanical removal of the plow zone, in most places, 6 to 8 inches in depth, using a mini excavator with smooth-bladed bucket. Once exposed, the subsoil was inspected for any indications of cutting/filling. The first exploratory trench measured approximately 10 feet wide and extended four hundred feet along the crest of the finger ridge. Two additional trenches were cut in a similar fashion along the spine of a ridge spur located at the southwestern terminus of the finger ridge (Figure 79, dashed line).





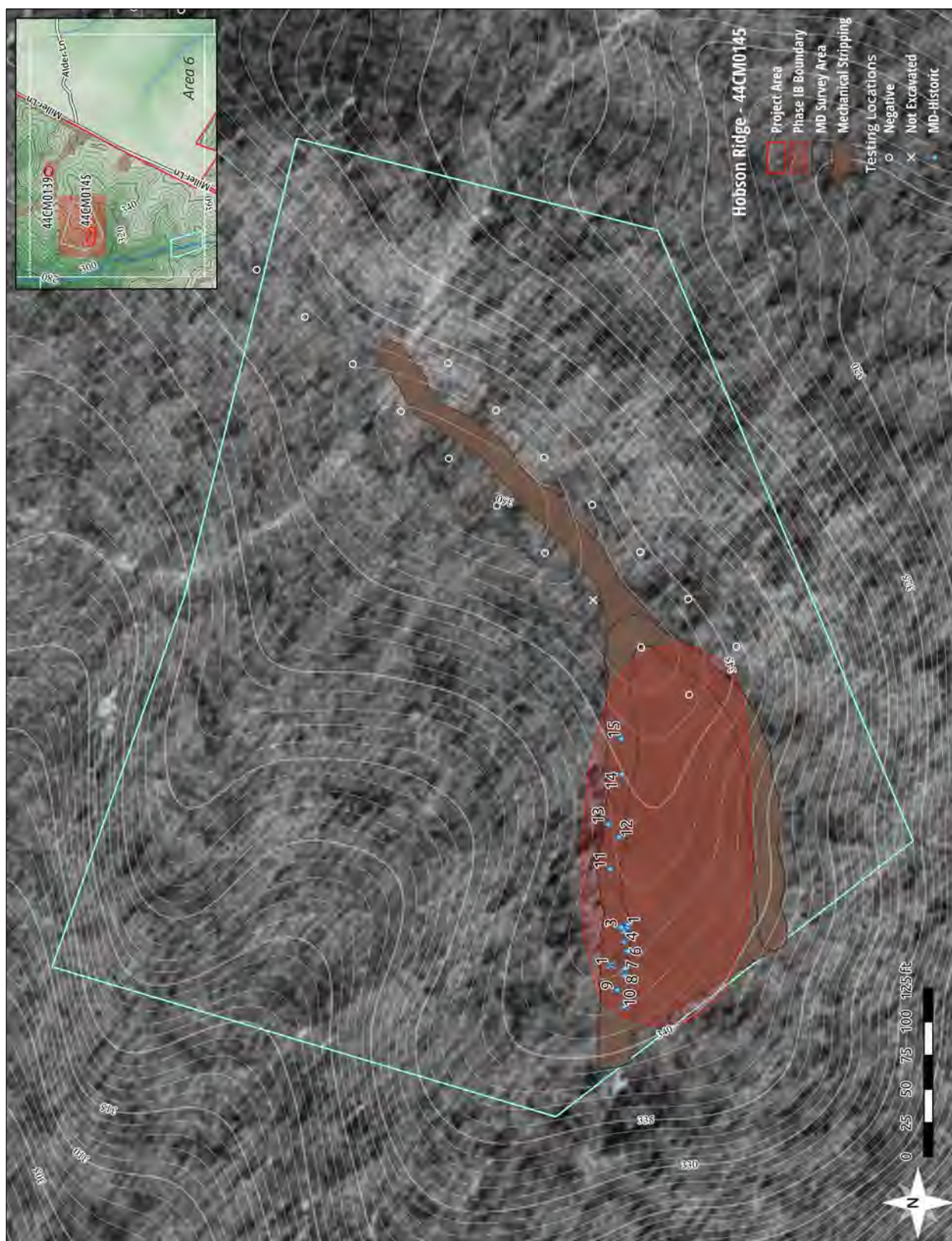
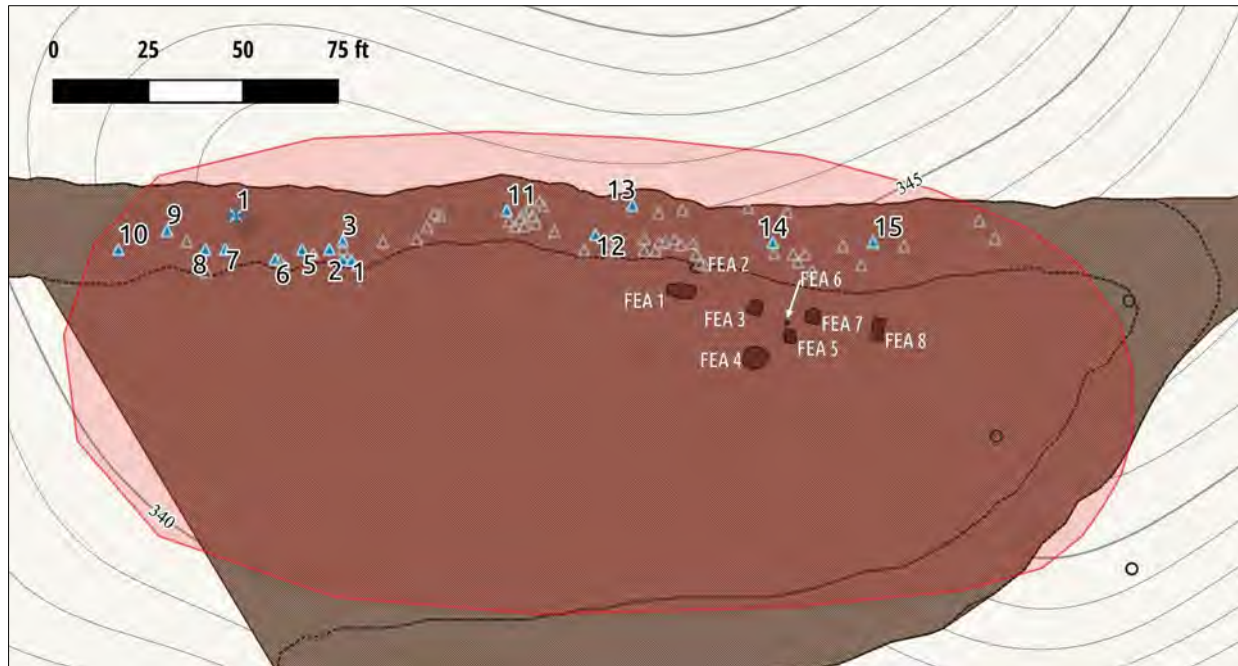


Figure 79: Closeup of Subsurface Testing, Metal Detector Strikes, and Boundary of the Hobson Cemetery and Site 44CM0145 Overlay on 1947 Black and White Aerial Imagery.



**Figure 80: Closeup of Metal Detector Strikes and Subsurface Features at 44CM0145.**

The longer of the two additional trenches measured 325 feet in length, the shorter, approximately 200 feet. The trenches found no evidence of graveshafts and were backfilled. Following a hard rain, a pearlware sherd (SC-1) was discovered on the ground surface in one of the backfilled trenches. Closer inspection of the area revealed an additional stoneware sherd (not collected) and it was decided that the two trenches at the southwestern end of the ridge should be metal detected to determine if there was any additional evidence of cultural activity on the ridge spur.

Eighty-one metal detector strikes were documented in the two trenches (Figure 80). The highest concentration of artifacts was noted along the southern boundary of the northern trench and northern limits of the southern trench and appeared to indicate that the core of the site lies in between the trenches, near the center of the ridge spur (see Figure 79).

Eighteen artifacts were recovered from fifteen of the metal detector strikes. Temporally diagnostic artifacts recovered from the site included 2 pearlware sherds (1780-1820) and 10 cut nails (post 1790). Other finds included a crenulated glass bead, a horseshoe, a wrought nail, and unidentified iron fragments (see Appendix 4) (Figure 81). Based on the variety and date ranges of the artifacts collected, site 44CM0145 is interpreted as the remains of a dwelling, dating to the early nineteenth century, and apparently predates the Hobson Site (44CM0139).

Following the metal detector survey, the cemetery survey continued with the removal of the plowzone across most of site 44CM0145. A total of seven subsurface features were identified (Figure 82), none of which are interpreted as burials. Twenty-two additional artifacts were collected from the surface of Feature 4 during mechanical stripping. Finds were consistent with artifacts collected during the trenching exercise and included 16 pearlware fragments (1769-1830), 2 patinated wine bottle fragments, 2 unidentified earthenware sherds, a stoneware base sherd and one unidentified nail fragment (see Figure 81).

Site 44CM0135 is interpreted as a domestic occupation site and includes the remains of a structure and possible well. The boundary of site 44CM0145 includes the metal detector strikes and all of the features discovered during additional stripping (0.69 acres).





**Figure 81: Crenulated glass bead/button and pearlware plate from 44CM0145.**



**Figure 82: Aerial View of Subsurface Features uncovered at 44CM0145 During Mechanical Stripping.**

### ***Area 7***

Area 7 includes the southeastern portion of the main landfill property and the western third of the entrance road property. Miller Lane, which bisects the survey area, divides the entrance road parcels from the landfill area. In total, Area 7 includes approximately 96 acres of the Phase IB





**Figure 83: Typical Environmental Setting, Area 7 West (left) and East (right) of Miller Lane.**

survey area. To the west of Miller Lane, drainage is from southeast to northwest, through an unnamed tributary to Muddy Creek. In this area, the land is covered in planted pine forest. East of the roadway, the landscape is covered with mature oak/hickory forest (Figure 83). Drainage is to the southeast, through a tributary to Maple Swamp Creek.

Level terrain within the study area is primarily made up of Cecil sandy loam (6B) with Cecil sandy clay loam (7C) commonly found on slopes above drainages (Figure 84). Elevations range from a high point of 370 feet a.m.s.l. along Miller Lane to a low of 330 feet in the drainage on the west side of the road and 270 feet a.m.s.l. in the drainage in the eastern portion of the property (Figure 85).

One area of archaeological interest was identified within Area 7 during the Phase IA investigation. A local hunter described an illegal liquor distillery he had come across while hunting on the property, located on the drainage in the northwestern corner of the study area. The area was visually inspected during the Phase IA investigation and again during the Phase IB survey, but no evidence of a distillery was identified in the reported location.

One hundred seventy-five STPs were excavated in moderate and high probability areas in Area 7, principally along the crests of ridge spurs and knobs on both sides of Miller Lane. Additional STPs were excavated on the southern terminus of an upland ridge that enters the study area along its northeastern boundary. Soil profiles were consistent across most of the testable areas in Area 7. The typical profile included a plow zone (Ap) approximately seven inches in depth above sterile subsoil (B horizon). Hues of the plow zone ranged from, 7.5YR to 10YR with values of 4 or 5 and chroma ranging between 4 and 8 as represented by the profile of STP 7-201.

#### **Area 7, STP 201**

Ap: 0-7 inches-7.5YR 4/4 brown silty loam

B horizon: 7-11 inches-10YR 5/4 yellowish brown silty clay

Two isolated finds were recovered from Area 7 during the STP investigation. STPs 7-201 and 7-215 each contained a single quartz flake fragment.







Figure 84: Most Recent Aerial Imagery of Area 7 with Soils Overlay.





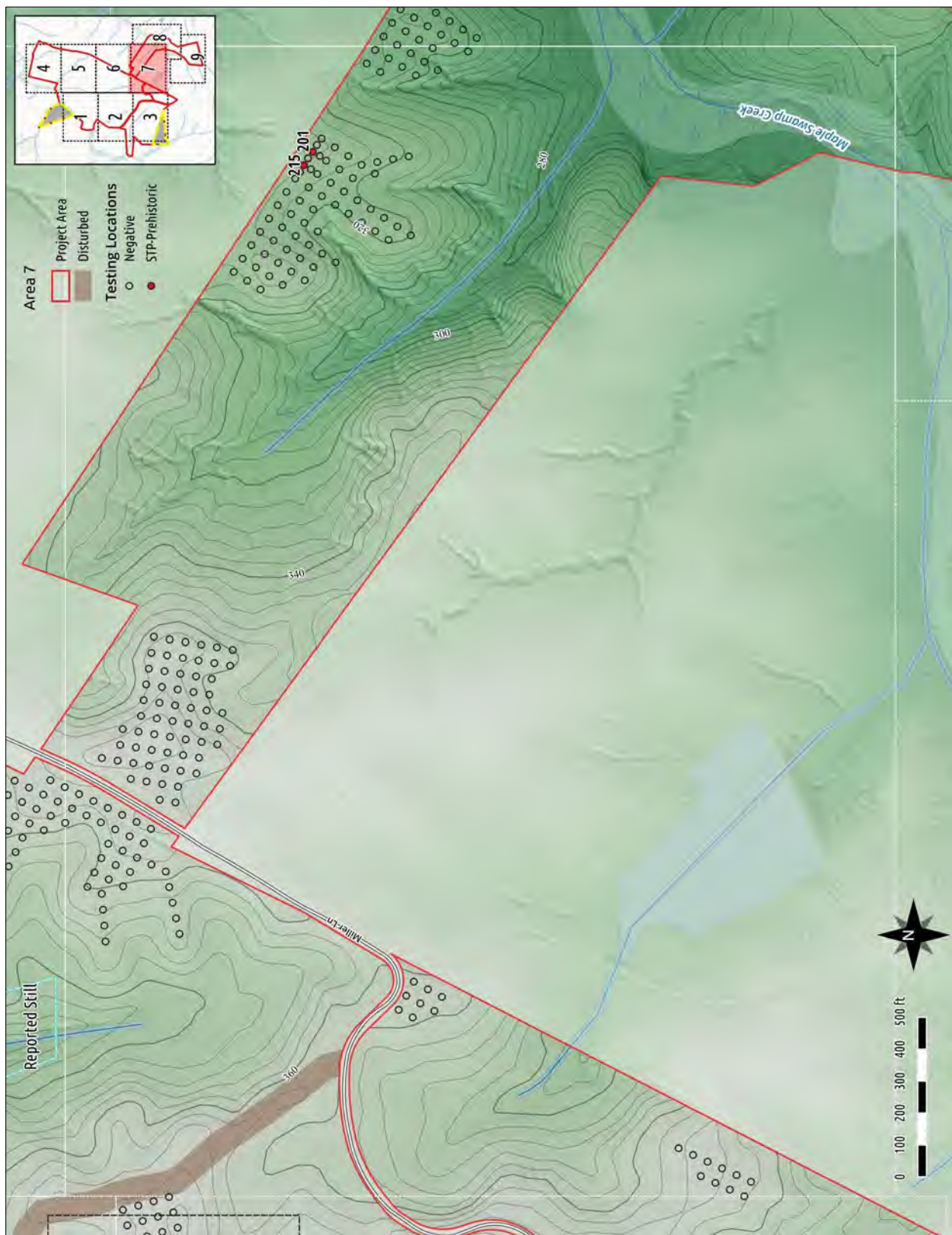


Figure 85: Topographic map showing Phase I testing locations and existing disturbances (brown) in Area 7.



## *Area 8*

Area 8 includes 39 acres and is bisected north to south by Maple Swamp Creek. Unnamed tributaries to the creek also divide the northern and southern halves of the study area. The area between Miller Lane and Maple Swamp Creek, which includes the western portion of Area 8 is covered in deciduous forest in both the 1947 and 1958 aerial photographs of the project vicinity and bears no signs of modern logging activities or other disturbance. East of the creek is a slope overgrown with scrub pine, wild raspberry and eastern red cedar, accessed by a road east of the project area. The portion of Area 8 east of Maple Swamp Creek and south of the unnamed tributary was recently logged (Figures 86 and 87).

Soils within the study area were primarily composed of steeply sloping variants of Poindexter-Wedowee complex (32D) and Appling Helena complex (7C). Both soils types are prone to erosion and a brownish yellow sandy clay loam subsoil with quartzite gravels was visible on the ground surface in clearings throughout the recently logged portions of Area 8. Given the excessive slopes and indications of significant erosion, much of Area 8 was determined to have a low potential to contain cultural resources

Subsurface testing was limited to a single ridge spur along the northern boundary of Area 8. A total of 25 STPs were excavated on a spur overlooking Maple Swamp Creek; however, testing found no evidence of cultural activity. Soil profiles were consistent with that of STP 7-201 (described above).

### *Edgemont (44CM0146)*

The 1864 Gilmer Map of Cumberland County is the first to depict a dwelling along with the name “Jones” in the location of Site 44CM0146 (see Figure 6). Historic aerial photographs of the project vicinity from 1947 and 1958 also show a dwelling and associated outbuildings in this location (Figure 88).

At the time the Gilmer map was made, Henry and Lucy Jones were living in the dwelling once known as Edgemont, perhaps best known as the birthplace of John Singleton Mosby. The Jones’ had purchased the dwelling and 455.5 acres from Moses and Mary Treadway in 1863. The house and tract were the same property left to Addison McLaurine in 1853 by James McLaurine, the original inhabitant of Edgemont and maternal grandfather to Mosby. James McLaurine, constructed the dwelling in the late eighteenth or early 19<sup>th</sup> century in the central portion of his vast land holdings, reported to contain in excess of 6,000 acres, that spanned the boundary between Cumberland and Powhatan Counties. McLaurine raised seven daughters and two sons at Edgemont and lived there until his death in 1848.

A newspaper report in the Richmond Times Dispatch circa 1980 suggests that by the mid twentieth century the house had fallen into a state of disrepair and in the 1970s the owner sold the dwelling to Mr. and Mrs. Warren West. The Wests dismantled Edgemont and a second dwelling known as Buena Vista (Jeffries Site / 44CM0136), once the home of James’s daughter Martha McLaurine and her husband John Jeffries, and combined both structures into a reconstruction of Edgemont, located approximately 3 miles east of the project area (Figure 89).

The western limits of the domestic complex visible in historic aerial images appears to extend into Area 8 in the vicinity of the ridge slope covered with scrub pine and cedar, noted previously. Both aerials show what is believed to be the dwelling and one outbuilding outside of the Green Ridge property, but both images appear to show one of the outbuildings in the project area.





**Figure 86: Most Recent Aerial Imagery of Area 8 with Soils Overlay.**





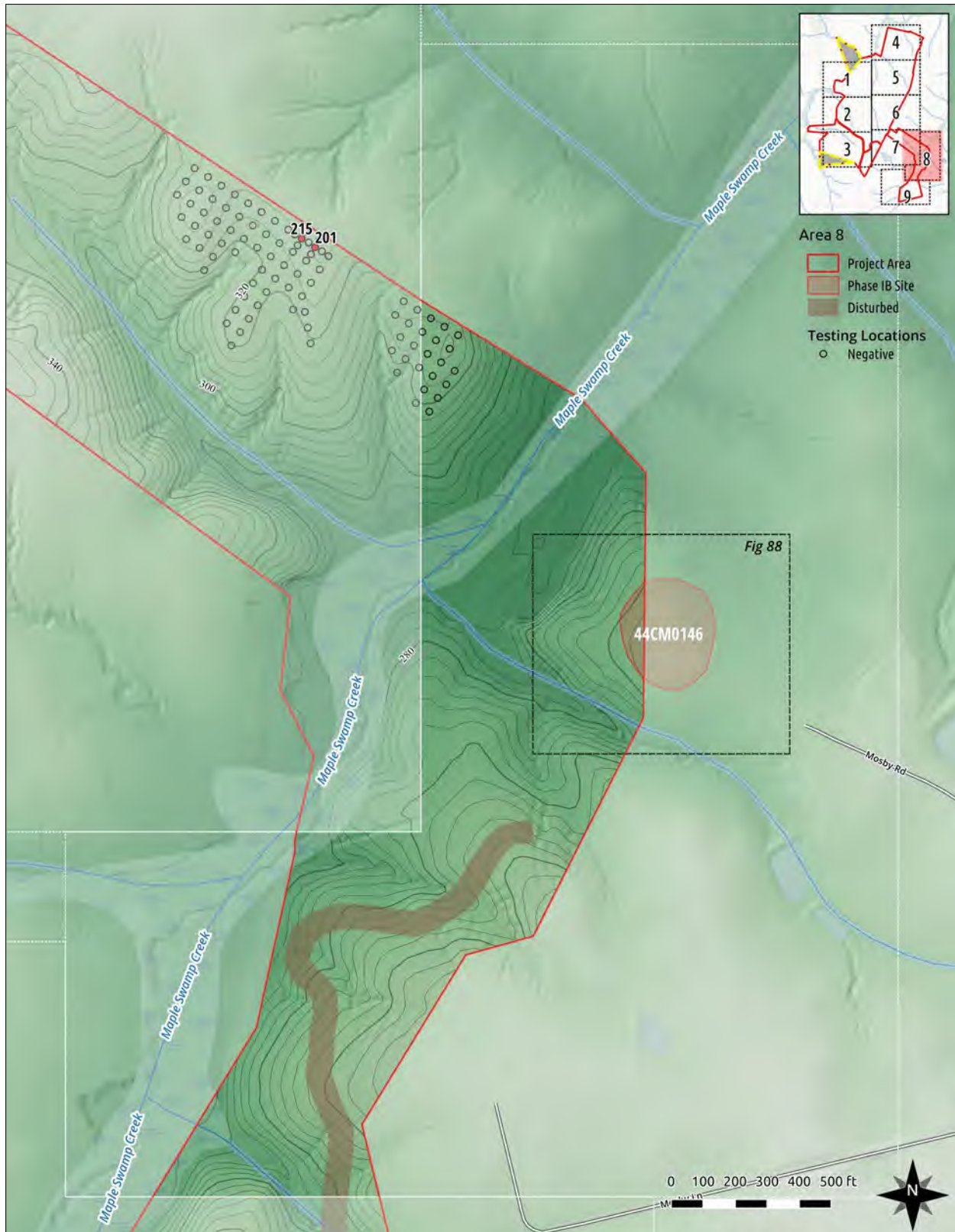


Figure 87: Topographic map showing Phase I testing locations, existing disturbances (brown), and site boundaries (red) in Area 8.



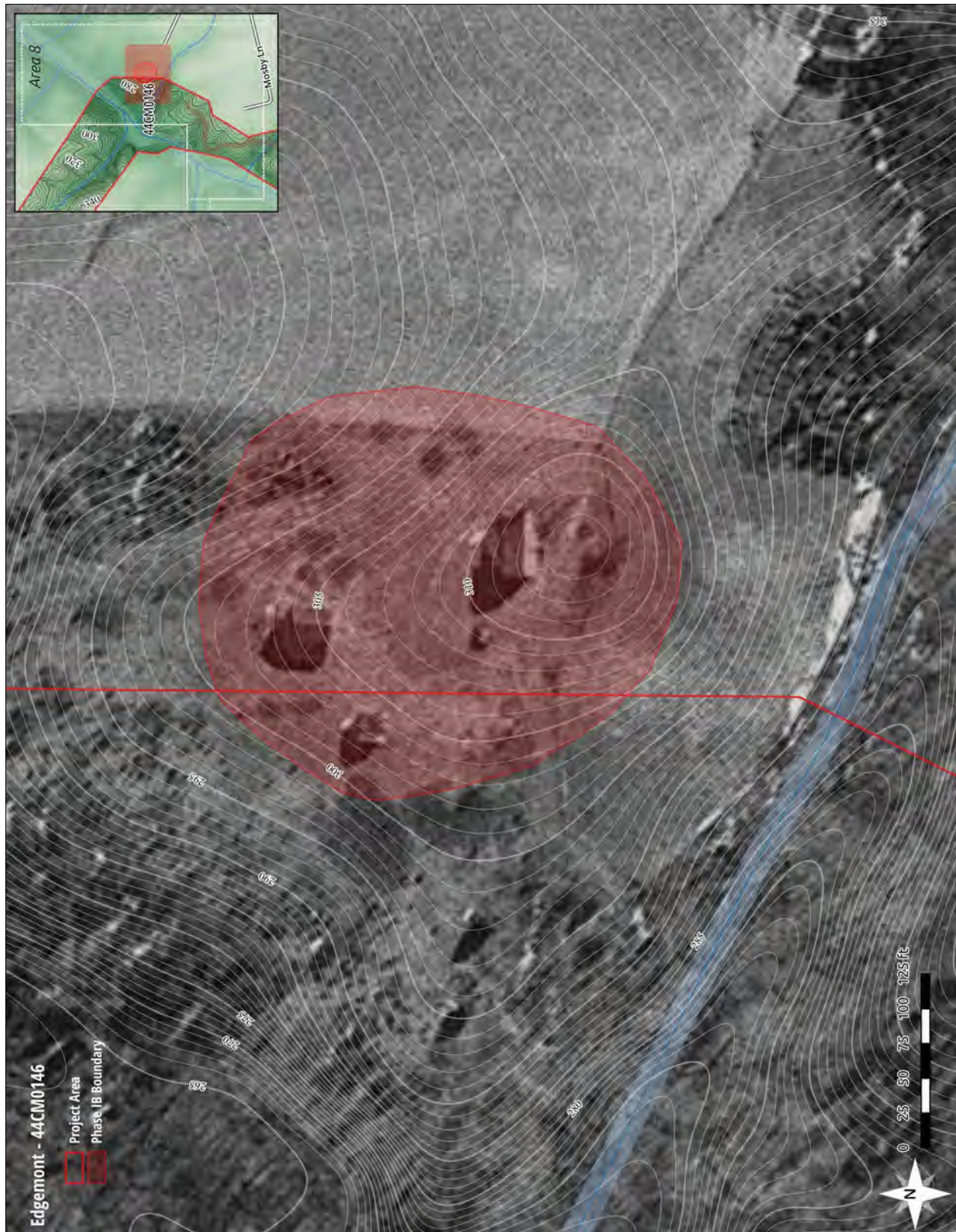


Figure 88: Closeup of Site 44CM0146 Overlain on 1947 Black and White Aerial Imagery.







**Figure 89: Reconstruction of Edgemont (DHR # 072-0101) on Ballsville Road.**

Visual inspection of the area found no standing structures or evidence of a collapsed structure on the sloping land along the eastern project boundary and, given the absence of any indication of a historic structure, no testing was undertaken on the ridge slope. The boundary of site 44CM0146 as depicted in Figure 88 was defined based on historic map projection and includes approximately 1.83 acres.

### ***Area 9***

Area 9 is bound by Anderson Highway (US 60) to the south and Maple Swamp Creek to the west and includes 45 acres. An unnamed tributary to Maple Swamp Creek roughly defines the northern boundary of the study area. Soils are a continuation of those seen in the southern portion of Area 8. Slopes composed of Poindexter-Wedowee complex (32D) and Appling Helena complex (7C) are common throughout the study area, but unlike Area 8, surround ridge tops made up of Cecil sandy loam (6B) (Figure 90). Evidence of recent logging activities is visible in Figure 87 and the extent of recent disturbance was observed during the visual inspection of the study area (Figure 91). Historic aerial images from 1947 and 1958 show this portion of the Green Ridge property covered in mixed deciduous forest and oak and beech stumps observed throughout the study area were of comparable size to the trees observed between Miller Lane and Maple Swamp Creek, suggesting this area had remained undisturbed throughout most of the twentieth century.





Figure 90: Most Recent Aerial Imagery of Area 9 with Soils Overlay.







**Figure 91: Recent Logging Disturbance in Area 9..**

Elevations within Area 9 range from 345 feet a.m.s.l. in the southeastern corner of the study area to 280 feet a.m.s.l. in the floodplain of Maple Swamp Creek along its northwestern boundary. Topographically, the area includes the western extent of a series of finger ridges overlooking Maple Swamp Creek (Figure 92).

During the Phase IB investigation, 84 STPs were excavated in Area 9. Soils were surprisingly eroded, considering the evidence of relatively minimal modern disturbance. A plow zone was virtually non-existent in all tested portions of Area 9. Rather, subsoil was typically encountered immediately below the Ao horizon as recorded in STP 9-89

#### **Area 9, STP 89**

Ao: 0-1inch-7.5YR 4/4 brown silt loam

B horizon: 1-4 inches-5YR 4/6 yellowish red clay

No artifacts were recovered during the STP investigation in Area 9.

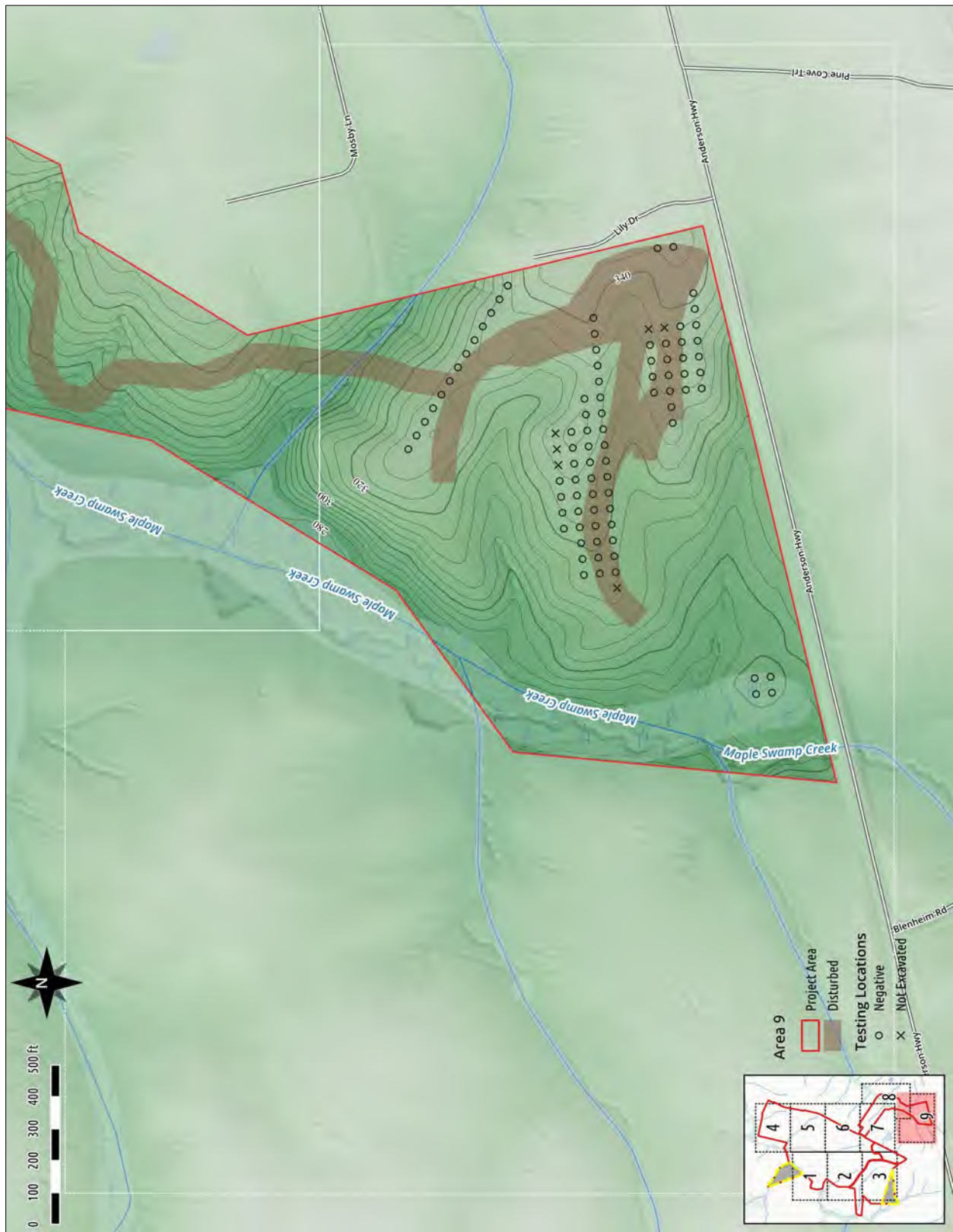


Figure 92: Topographic map showing Phase I testing locations and existing disturbances (brown) in Area 9.



## **INVESTIGATION SUMMARY & RECOMMENDATIONS**

Phase I cultural resource investigations at the Green Ridge property included a GIS viewshed analysis conducted by Draper Aden Associates, a map-based architectural survey, evaluation of recorded historic structures from which the finished landfill will be visible, a walkover survey (Phase IA), shovel test excavations and metal detector surveys (Phase IB), and a cemetery identification survey. A summary of each investigation and recommendations for additional work are provided below. Figure 93 illustrates the locations of all of the resources identified during this investigation.

### ***Viewshed Analysis***

The waste disposal area at the Green Ridge property will eventually extend approximately three hundred feet above the existing landscape and visual intrusions will continue beyond the project boundary. Viewshed analysis conducted by DAA identified fifteen recorded structures from which the landfill will eventually be visible. Of the fifteen structures identified, only one, the Pine Grove Rosenwald School (DHR #024-5082), had been evaluated for inclusion on the National Register of Historic Places.

### ***Map-Based Architectural Survey***

Identification of historic structures was completed using the 1969 Whiteville and Trenholm USGS 7.5 minute quadrangles. Structures were identified as “dwellings” or “outbuildings” based on the USGS symbology and their locations were checked against the most recent aerial imagery from the Virginia Geographic Information Network (VGIN) to determine if they were still standing. Following this methodology fifty-five additional historic structures were identified within one mile of the project area. Viewshed analysis indicated the landfill will eventually be visible from eleven of the structures within one mile of the project area. All of the structures from which the landfill will be visible were previously recorded in DHR’s V-CRIS system.

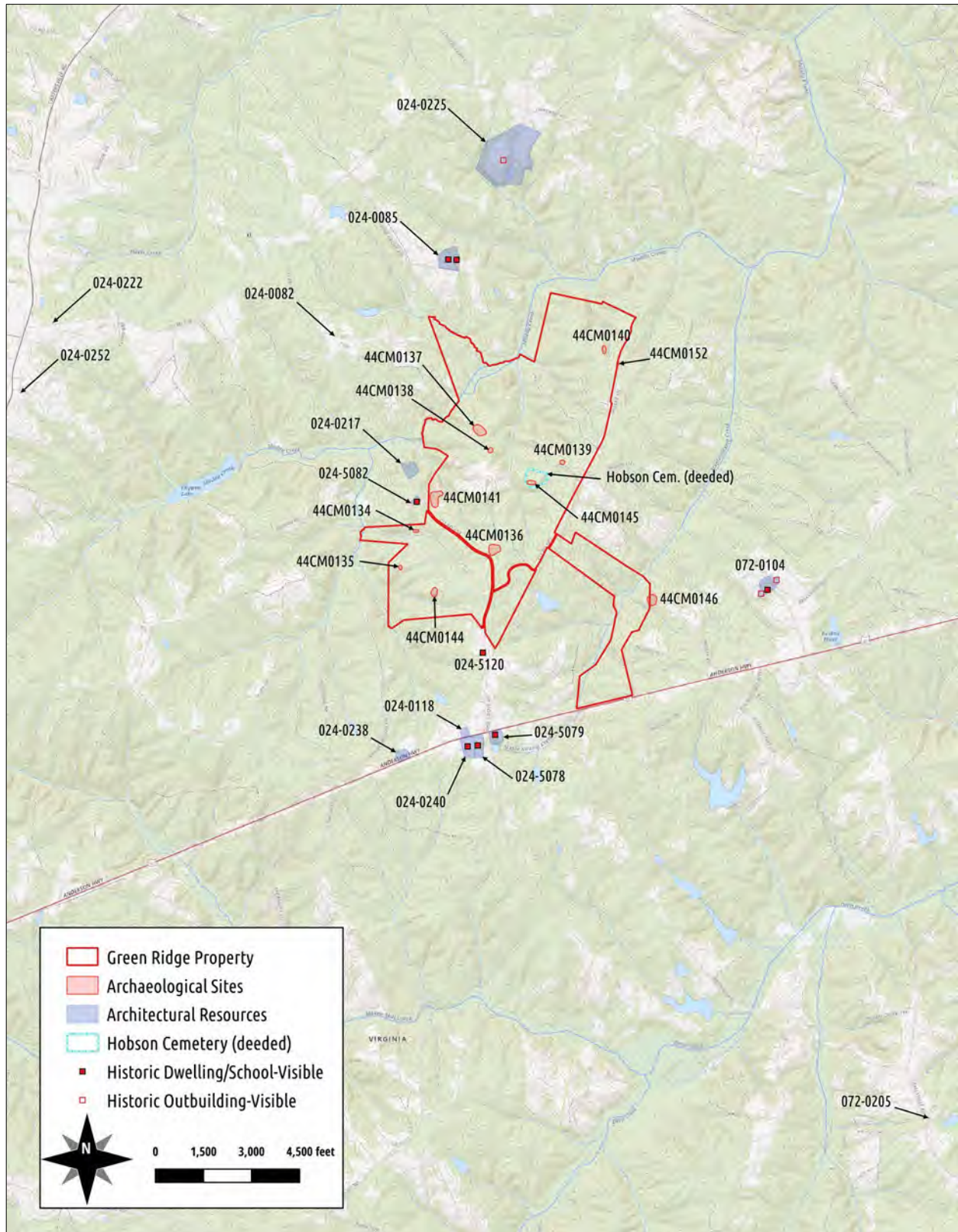
### ***UPDATE: Unevaluated Structures***

Following submission of the original version of this report, DHR requested additional information in a letter dated April 30, 2020, for fourteen unevaluated architectural resources that the viewshed analysis indicated would be visually impacted by the proposed landfill. This survey was completed by Lyle Browning and was submitted to DHR in September of 2020. The results of that investigation are summarized below.

### **DHR #024-0082 – Locust Grove**

The Locust Grove farmstead includes a one-and-a-half story frame dwelling with central passage, end chimneys with Flemish bond, and shed dormers set atop a stone foundation (circa 1810). This domestic complex, located approximately 1.25 miles northwest of the Green Ridge property, also includes a springhouse, smokehouse, barn, and additional outbuildings. Based on the Flemish Bond chimneys and a stone in the east chimney dated 1780, the resource is interpreted as an eighteenth century domestic property, surrounded by agricultural lands. The structure is recommended eligible for the National Register.







DAA viewshed analysis indicates that landfill will not be visible from the dwelling; however, DHR expressed concern about the auditory and atmospheric effects the proposed landfill could have on the setting and feeling of the property. In a letter dated March 19, 2021 DHR requested additional information “regarding the potential impacts to Locust Grove (DHR ID #024-0082) from increased commercial traffic (and/or any other auditory or atmospheric effects)”. The requested information is provided below.

**Setting:** Locust Grove was built by a middle to large income landowner family whose basis was entirely agricultural with field crops and animal husbandry as their income sources. Locust Grove is a shadow of its former agricultural lands. The major change in the settings and the historic feeling of these sites is the introduction of pine plantations where formerly there were open agricultural fields and/or pasturage.

**Historic Landscape change:** The identity of the historic landscape has changed from largely field crop agriculture to silviculture. Based on archival evidence, this appears to have started just after WWII. Housing along road corridors is a form of sparse ribbon development with structures situated within 200 feet of the road on small properties or on interior farms or former farms.

**Traffic:** The entrance to the landfill will be located on Route 60, thus impacts to traffic resulting from the landfill will be limited to this roadway. Traffic along Route 60 has changed drastically over the years. Obviously, horse traffic has given completely away to motorized traffic. The traffic today contains tractor trailer trucks and logging trucks that use the road daily as well as commuters to various locations. None of these was present in the first 50 years of the 20<sup>th</sup> century. Additional traffic on Route 60 – which is intended by the State to be the main traffic artery to the west - cannot impair these structures any more than they are already impacted by the increased traffic in and through Cumberland County. Locust Grove is located approximately three and a half miles from Route 60, so it is not impacted by the traffic on this road and hence not impacted by additional traffic associated with the landfill.

**Auditory:** Locust Grove sits approximately 1.25 miles northwest of the waste disposal area at the Green Ridge project separated by various drainage areas and ridges. It is highly unlikely that sounds will impact this site (because sounds are capped at 68 decibels by the Conditional Use Permit) at the property the line - which is equal to the sound of a normal conversation.

**Atmospheric:** Locust Grove is located approximately 1.25 miles northwest of the waste disposal area at the Green Ridge project separated by various drainage areas and ridges. It is highly unlikely that there will be atmospheric impacts from the Green Ridge project especially since the prevailing winds are from the west. Atmospheric impacts are also controlled per the Conditional Use Permit and landfill permit. We would also note that the Conditional Use Permit specifically prohibits sludge and reprocessed wall board, by far the leading causes of odor associated with landfills.

In consideration of the above information, it is our opinion that the proposed landfill does not constitute an adverse effect to Locust Grove and no additional work is recommended.



### **DHR #024-0085 - (Melrose) Dwelling, 530 Pinegrove Road**

This resource includes the remains of the Melrose Plantation, located approximately 0.8 miles north of the Green Ridge property. The primary resource is a two story, brick dwelling in the Greek Revival style (ca. 1850). The domestic farmstead also includes a second dwelling (ca. 1890), a kitchen (ca. 1850), and barn (ca. 1920). The primary resource is a good example of large Piedmont plantation houses that have devolved into a house with surrounding pasturage. The house is recommended eligible for the NRHP.

DAA's viewshed analysis indicates the top of the waste disposal area will be visible from the dwelling and mitigation of visual impacts is recommended. Mitigation measures will be determined through an open discussion between all interested parties and finalized in a Memorandum of Agreement.

### **DHR #024-0118 – Bruners Store, 196 Anderson Highway**

Alternately known as the M. H. Maxey Store, the R. O. Moore Store, and Bruners Store, this resource includes a one-story, front facing gable, three bay frame structure with standing seam metal roof and stone pier foundation, constructed circa 1880. The structure lies approximately 0.75 miles south of the Green Ridge property. Modern additions to the original structure include a one-story, full width porch and commercial windows on the east facade and a one-story, full-width addition on the western elevation that dates circa 1920.

This structure has been altered from its original appearance by replacement front doors, a porch addition of recent vintage and metal cladding over most of the house apart from the north walls. The outbuildings are in a state of disrepair. This property is not recommended eligible for the NRHP and no mitigation is recommended.

### **DHR #024-0217 – Dwelling, Route 654**

This resource includes a two-story, three-bay, L-plan, frame dwelling with with 2-story, 2-bay porch; and three sheds. This domestic complex is located along the western project boundary, approximately 0.2 miles west of the landfill area.

The house is a common survivor of a common type replicated in the VA Piedmont. It has no architectural merit and no adornments. There are no plantings around the house. The house is not recommended eligible for the NRHP. The house will not be visible from the top of the completed landfill and mitigation measures will not be required.

### **DHR #024-0222 – Vacant Dwelling, Route 616**

This resource includes a one-story, three-bay, L-plan, frame dwelling, a shed, a barn, and a well house located approximately 2.5 miles west of the Green Ridge property. No house matching the description on the form was extant in the area. It is possible that the modern house replaced an earlier structure as the yard has mature trees.

Viewshed analysis indicates the top of the completed landfill will not be visible at the coordinates given. Mitigation measures will not be required.

### **DHR #024-0225 - Barn**

024-0225 includes the remains of a late nineteenth century domestic farmstead located approximately 1.25 miles north of the Green Ridge property. The description on the 1994 site form does not match the house found at the mapped location. But it does mostly match the





outbuilding description. The current house is a modular 1 story vinyl German sided structure built within the last few years.

The house and outbuildings are not recommended eligible for the NRHP. The top of the completed landfill will not be visible from the house. Mitigation measures will not be required.

#### **DHR #024-0238 – Rising Zion Baptist Church**

This primary resource consists of a modern (2002) rectangular, telescoping structure that increases in height as it extends to the north. The front gabled, 5 bay structure is clad in vinyl siding and a lower brick veneer and capped with a composite shingle roof. Additional resources include a modern shed and cemetery. The Rising Zion Baptist Church property is located approximately 1 mile southwest of Green Ridge.

The church is attractive, visually interesting and of modernist design. It is well maintained and blends simplicity of design and functionality with small exterior architectural garnishments. Due to its age, the building is not recommended to be eligible for the NRHP. The top of the finished landfill will not be visible from the church, thus, no mitigation is required.

#### **DHR #024-0240 – Clinton Manor, 199 Anderson Highway**

The Clinton Manor House is a two-story, T-plan frame, Gothic Revival dwelling in the style of Andrew Jackson Downing's country houses (circa 1870). This domestic complex is located on the south side of Anderson Highway, opposite Brunners Store (DHR# 024-0118), about 0.75 miles south of the landfill area. The dwelling retains a high degree of integrity, altered only by a wrap-around porch added in the early 20<sup>th</sup> century and a rear wing which may contain an earlier house. The resource includes the dwelling, shed, garage, and corner crib.

The 1999 and 2008 assessments used the term significant and stated that it was the only one of its type left in the county. As such is a rare survivor of a somewhat rare type. The house is currently unoccupied and in need of paint on the exterior, but is fundamentally in good shape and is recommended eligible for the NRHP.

The top of the finished landfill will be visible from the building, thus, mitigation is recommended. Mitigation measures will be determined through an open discussion between all interested parties and finalized in a Memorandum of Agreement.

#### **DHR #024-0252 – Greenfield Farm**

Greenfield farm is described as an excellent example of the small, self-sufficient, farm complexes common throughout Cumberland County in the late nineteenth century. The complex, located approximately 2.7 miles west of the Green Ridge property, includes a two-story, three-bay, vernacular I-house with rear ell and later additions. Contributing resources include a detached kitchen, secondary dwelling, multiple sheds, a smokehouse, and two barns.

The house, outbuildings and general area are well maintained and a good example of an agriculturally based late 19<sup>th</sup> to early 20<sup>th</sup> century farm. The complex includes original structures and multiple later structures. Due to the multiple ages of structures the original appearance has been altered and the complex is not recommended eligible for the NRHP.

DAA's viewshed analysis indicates the completed landfill will not be visible from the house, thus, mitigation measures will not be required.



### **DHR #024-5078 – Vacant Dwelling**

Located east of the Clinton Manor House and west of the intersection of Anderson Highway and French's Store Road approximately 0.75 miles south of the Green Ridge property, 024-5078 includes the dilapidated remains of an I-House plan, 2-story frame dwelling (ca. 1840) and a tobacco barn.

The house is a second quarter 19<sup>th</sup> century I-House common in Virginia for agriculturally based families of moderate means. The house is not recommended eligible for the National Register due to the current state of disrepair and because it is a relatively common survivor of a relatively common type.

Viewshed analysis indicates the top of the finished landfill will be visible from the building and no mitigation is recommended.

### **DHR #024-5079 - Dwelling, 169 Anderson Highway**

024-5079 includes a one-story, three-bay, Colonial Revival frame dwelling in the Cape Cod style (ca. 1940) and one-story, two-bay wood frame garage (ca. 1965) located on the south side of Anderson Highway, approximately 0.75 miles south of the Green Ridge property. Alterations to the structure include new windows and a rear addition. Similar dwellings are found in rural areas throughout the region. This resource is a common survivor of a common type built for families of limited means and is recommended ineligible for the National Register.

Viewshed analysis indicates the top of the finished landfill will be visible from the building; however, no mitigation is recommended.

### **DHR# 024-5082 – Pine Grove Rosenwald School**

The Pine Grove School is located on the west side of Pinegrove Road, approximately 0.1 miles west of the waste disposal area. The Pine Grove Rosenwald School was placed on the VA Landmarks Register in 2020 and has been recommended eligible for inclusion on the National Register under Criteria A and C for the period 1917-1958, based on architectural integrity, original design, materials, workmanship, and original setting.

The LIDAR-based viewshed analysis suggests the completed landfill will not be visible from the school due to intervening mainly coniferous trees. However, there is a sliver of land between the school and the landfill property that is not in the ownership of the landfill. Therefore, trees on that sliver, if harvested or removed, may render the completed landfill at least partially visible.

It is the opinion of DHR that construction of the landfill will constitute an adverse effect to the Pinegrove School and we concur. Mitigation measures will be determined through an open discussion between all interested parties and finalized in a Memorandum of Agreement.

### **DHR #024-5120 Dwelling, 79 Pinegrove Road**

This dwelling is a one story Colonial Revival frame structure with composite shingle roof, and set atop a cinderblock foundation located approximately 0.2 miles south of the landfill area. Tax records indicate the dwelling was constructed circa 1960. Countless examples of this type of dwelling can be found in rural areas throughout the region. This resource is not recommended eligible for inclusion on the National Register and no mitigation is recommended.

### **DHR #072-0104 – Brown Farm**

The Frazier House/Windsor House/Brown Farm includes a frame dwelling constructed in two phases. The earliest dates to 1780 and includes a one-and-a-half-story single room plan with loft.





Around 1840 a two-story, I-house addition was attached to the east gable end of the original structure. Contributing resources include 2 slave quarters, a granary, barn, shed, well house, smoke house, and multiple poultry houses.

The buildings comprising the Brown Farm are either originals or first edition additions and remain in good shape. The slave quarters is largely intact apart from the lack of a chimney.

The preservation of the complex of buildings dating from the 18<sup>th</sup> into the 20<sup>th</sup> century is excellent and is significant due to both the preservation of the main building and the 18<sup>th</sup> century immediately ancillary buildings. The 20<sup>th</sup> century buildings do not intrude upon the visual ambience of the main complex and complement it from a distance as a continuation of rural agricultural lifeways.

This complex is recommended eligible for the NRHP. However, the top of the finished landfill will not be visible from the building. Thus, no mitigation is required.

### **DHR #072-0205 Dwelling, 1660 Route 630**

This resource includes a domestic complex located approximately 4 miles southeast of the Green Ridge property, comprised of a two-story frame dwelling with gable roof, 2/2 double-hung windows, one story 3-bay porch constructed circa 1900; a secondary dwelling, and smokehouse.

While the farmhouse and dairy buildings form an integral and temporally consistent building set, the addition of several late 20<sup>th</sup> century buildings and a large parking lot detract from the overall theme of the property.

This structure is not recommended to be eligible for the NRHP. Viewshed analysis indicates that the top of the finished landfill will not be visible from the building; thus, no mitigation is recommended.

### ***Phase IA Survey***

A Phase IA pedestrian inspection and archival investigation was conducted within the ±1,178 acre Green Ridge property in the fall of 2018. Eight archaeological sites, including a cemetery, an illegal liquor still, and six domestic farmsteads were identified during the survey. Of the latter, the Jeffries Site (44CM0136) and the Hobson Site (44CM0139) appear to be larger elite ownership sites. The Jesse Parker Farmstead (44CM0141) and the Ammoynet Farmstead (44CM0140) appear to be a middle class farm operations. The Frog Site (44CM0137) and the Chimney in the Field Site (44CM0138) appear to be Antebellum through 20<sup>th</sup> Century African-American and/or tenant farmer domestic structures.

Elite and middle class domestic sites have been studied intensively for time periods prior to the Civil War. Far less work has been done on those type sites for the period after the Civil War when accommodations were made for the transition between enslaved labor agrarian systems to "slavery in all but name" systems to Jim Crow era systems. The same applies to the material culture of African-American households after 1865.

Two areas of archaeological interest were also identified. A graveyard reserved in deed transactions for the Hobson family is thought to be located within a 55 acre parcel currently covered in planted pine plantation.

A second still site was also described by an adjoining landowner who had noted it while hunting. However, no surface evidence of either resource was identified during the Phase IA survey.

The project was thus recommended to proceed to a full Phase IB Intensive Cultural Resources Survey.

### ***Phase IB Survey***

The Phase IB investigation was completed between March of 2019 and March of 2021. The survey methodology included archival research, historic map projection, visual inspection of the project area, and systematic shovel test pit excavation in moderate and high probability areas. Metal detection of low density historic artifact scatters was also performed. Subsurface testing was limited to approximately 1,100 acres within the  $\pm 1,178$  acre property that is to be potentially impacted by proposed construction activities.

A total of 2,447 STPs were excavated in moderate and high probability areas in the proposed impact area during the Phase IB investigation. Additionally, the core areas of two low density archaeological sites (44CM0138 and 44CM0144) were metal detected to provide a better understanding of the material remains and activity areas within the site boundaries.

Four new archaeological sites (44CM0144, 44CM0145, 44CM0146, and 44CM0152) were identified and the boundaries of the Buena Vista / Jeffries Site (44CM0136), the Frog site (44CM0137), Chimney in the Field (44CM0138), Hobson Site (44CM0139), the Amoynett Site (44CM0140), and the Jesse Parker Farmstead (44CM0141) were revised to reflect the extent of surface features and subsurface deposits.

#### **44CM0134 – Probable African American Cemetery (0.25 acres)**

This site contains at least 22 graves of which most are marked with fieldstone headers and footers. No inscribed tombstones were identified. The individual graves were survey located to assist in developing plans for avoidance. Current plans show no impacts in the vicinity of the cemetery. Avoidance or Cemetery Delineation and Burial Relocation Surveys are recommended.

#### **4CM0135 – Illegal Whiskey Distillery (0.3 acres)**

This site location was identified by a local informant. Historic accounts suggest the still was operated by a local Baptist minister around the turn of the 20<sup>th</sup> century. He also bought the first car in the county with the stipulation that it could be used for no illicit purposes and if it was to be so used, it would be forfeited along with all payments. Apparently there was no forfeiture.

The still consists of a boiler set on cinderblocks, the remains of several galvanized riveted barrels with wooden bottoms, all of which is set adjacent to the small water source for the still. The barrels show evidence of ax marks from the destruction by revenueurs. In addition there are numerous bullet holes. The still has decayed in place. It is a fine example of the illicit art of whiskey distillery.

Current construction plans call for no impacts to the site location and this area was not tested during the Phase IB survey. Avoidance or Identification level (Phase I) survey is recommended.

#### **44CM0136 – Moved House / Jeffries Site (2.23 acres)**

A dwelling is noted in this approximate location on the 1864 Gilmer Map of Cumberland County associated with the name “Jeffries”. Historic records indicate the site was once the home of John Jeffries and his wife Martha McLaurine and was know as Buena Vista. An L-shaped dwelling and associated outbuildings are visible on the 1947 and 1958 historic aerial photographs of the project vicinity. The 1958 photograph shows a yard area with what appears to be a dwelling, barn and other outbuildings surrounded by mowed pasture.





Visual inspection of the site identified a partially filled cellar hole, and stone piers, piles of stone, a circular concrete foundation, and rotting structural timbers that appear to mark the locations of former outbuildings. Notably, very little remains of the 2-story frame visible in historic aerial photographs. Conversations with a machine operator working on the property, and long-time resident of Powhatan County, suggest the house was occupied until 1975, when it was dismantled and reassembled on a new site on the west side of Ballsville Road in Powhatan County, approximately four miles east of its former location.

Reports from local newspapers in 1980 describe the dismantling and relocation of Buena Vista by Mr. and Mrs. Warren West at the same time they were reconstructing Edgemont on Ballsville Road. The materials obtained from Buena Vista were used to reconstruct an ell on the rear of Edgemont, a design feature that was a part of the home's original design, but had been demolished in the early twentieth century.

One hundred twenty-nine artifacts were recovered from 21 positive STPs at site 44CM0136. The distribution of positive STPs and surface features observed during the visual inspection of the site roughly corresponds to the yard visible in the 1958 aerial photo. The functional variety of the assemblage and temporally diagnostic artifacts are consistent with the remains of a domestic farmstead dating from the nineteenth and twentieth centuries.

Although documentary evidence has confirmed that Buena Vista was removed from the site in the late 1970s, the remains of outbuildings and subsurface deposits associated with the site occupation remain and appear to be relatively undisturbed. Based on the integrity of site deposits and its potential to contribute new information to our understanding of regional subsistence and agricultural practices and settlement patterns, site 44CM0136 is believed to be potentially eligible for inclusion on the National Register under Criterion D. This site is located in a portion of the property that cannot be avoided by proposed construction activities, thus Phase II Evaluation excavations are recommended.

#### **44CM0137 – Frog Site (2.24 acres)**

The Frog Site is visible in both the 1947 and 1958 aerial photographs of the project vicinity. In both images a large, solitary structure is visible in the center of the site. Visual inspection of the site vicinity identified numerous artifacts indicative of a domestic occupation, including a flat iron, ceramic sherds, glass bottle fragments, window glass, and numerous shoe soles extending along a ridge that included a heavily disturbed, recent timbering staging area.

Based on the disturbance observed in and around the staging area, the Frog Site was thought to have a low probability to contain intact subsurface deposits. However, the STP survey demonstrated that the site extends further to the north and west, into an area that, while impacted by previous timbering activities, retains a greater degree of stratigraphic integrity.

Thirty-six artifacts were recovered from sixteen positive STPs at site 44CM0137. Finds were concentrated in two clusters northwest and southeast of the former structure location. Based on the functional variety and temporally diagnostic artifacts recovered, the assemblage is interpreted as the remains of a late 19th/early 20<sup>th</sup> century dwelling.

The southern portion of 44CM0137 has been destroyed by recent logging activities and while new deposits were identified in a less disturbed portion of the ridge during the STP survey, all finds were recovered from plowed soil horizons. Thus, the research potential of deposits at 44CM0137 is thought to be low and no additional work is recommended.

#### **44CM0138 – Chimney in the Field (0.44 acres)**

Site 44CM0138 is located on a narrow ridge approximately 450 feet south of the Frog Site. No structure is noted or visible in this location on any historic maps or aerial photographs of the project vicinity. However, evidence of the former occupation remains in the form of a partially collapsed stone chimney. Apart from the chimney and a dead tree that likely marks the boundary of the former domestic area, a small scatter of melted glass was noted on the ground surface immediately north of the chimney.

Subsurface testing revealed an undisturbed soil profile within the site, but produced no evidence of the historic occupation. Metal detection of the core site area, an area measuring approximately 125 feet by 100 feet produced 173 artifacts and identified two high-density metal concentrations. Temporally diagnostic artifacts and burned glass suggest site 44CM0138 includes the remains of a late 19<sup>th</sup>/early 20<sup>th</sup> century dwelling that likely burned prior to 1947.

Subsurface investigations found virtually no evidence of post occupational disturbance at site 44CM0138. The lack of artifacts discovered during the STP survey suggests fewer material possessions and may indicate a lower economic status for the site inhabitants. Site 44CM0138 is believed to be potentially eligible for inclusion on the NRHP under Criterion D, based on its potential to contribute new information to our understanding of regional subsistence and agricultural practices and settlement patterns. Avoidance or Phase II investigations designed to identify and explore the identities and lifeways of the site inhabitants are recommended.

#### **44CM0139 – Periwinkle Patch / Hobson Site (0.38 acres)**

A cluster of structures is noted in the general location of the Hobson Site on the 1864 Gilmer Map, but there is no name associated with them and an active driveway and what appears to be the dwelling is discernible in the vicinity of the site in the 1958 aerial photograph.

Site 44CM0139 includes a rectangular cellar hole approximately four feet deep, filled with brick rubble and a possible ice house located on a slope north of the dwelling. Although the ground surface within the site is obscured by a dense carpet of periwinkle, closer inspection of the perimeter of the cellar hole revealed brick scatters along the eastern and western walls that may represent the remains of gable chimneys.

Artifacts were recovered from five of the eighteen STPs excavated in and around the cellar hole. Numerous brick fragments and lime soda windowpane glass were found in a fill layer surrounding the structure. It is not known if the fill layer represents the occupation or demolition of the structure.

The site may have been impacted by the widening and maintenance of a logging road that likely follows the original road to the dwelling. However, no artifacts were observed in the road cut and no evidence of post-occupational dumping or disturbance was noted in the site interior. The deposits at 44CM0139 are expected to retain a high degree of integrity and are believed to have the potential to contribute new information to our understanding of regional subsistence and agricultural practices and settlement patterns. Avoidance or Phase II investigations designed to identify and explore the lifeways of the site inhabitants are recommended.

#### **4CM0140 – Ammoynett Farm (0.55 acres)**

A structure in this approximate location is labeled with the name “Ammoynett” in Gilmer’s 1864 map of Cumberland County. The area surrounding the site is wooded in the 1947 and 1958 aerial



photographs. A clearing is visible in the vicinity of the site, but no structures are visible and the driveway leading from Miller Lane does not appear to be in use.

This site is represented by a 2 story chimney of coarse ashlar blocks with a brick top. A remnant road trace and variations in vegetation in the vicinity of the chimney suggest minimal post-occupation disturbance.

Of the 52 STPs excavated in the vicinity of the Phase IA site boundary, only five produced artifacts. Based on historic maps and artifacts collected during the Phase I investigation, site 44CM0140 is interpreted as a middling to lower income domestic site dating to the nineteenth/early twentieth century.

Avoidance or Phase II investigations designed to identify and explore the lifeways of the site inhabitants are recommended.

#### **44CM0141 – Jesse Parker Farmstead (2.87 acres)**

The Jesse Parker Farmstead is named for the owner of a cluster of structures noted in the approximate location of 44CM0141 on the 1864 Gilmer Map of Cumberland County. A dwelling and associated outbuildings are also visible in this location on the 1947 and 1958 aerial photographs of the project vicinity. The 1958 photos shows an L-shaped dwelling surrounded by a yard; a large structure, likely a barn to the south, and a clearing and possible structure to the northeast. Visual inspection of the site identified the remains of a collapsed frame dwelling, collapsed barn, and stone foundation with possible chimney base corresponding to the three locations previously discussed.

Seventy-seven artifacts were recovered from fifteen positive STPs (10 surrounding the dwelling, 1 near the barn, and 4 near the stone foundation) at site 44CM0141. Based on the functional variety and temporally diagnostic artifacts recovered, the assemblage is interpreted as the remains of a late 19<sup>th</sup>/early 20<sup>th</sup> century domestic complex.

Site 44CM0141 is believed to be potentially eligible for inclusion on the NRHP under Criterion D, based on its potential to contribute new information to our understanding of regional subsistence and agricultural practices and settlement patterns. Avoidance or Phase II investigations designed to identify and explore the identities and lifeways of the site inhabitants are recommended.

#### **44CM0144 – Rockpile Site (0.99 acres)**

No structure is noted or visible in this location on any historic maps or aerial photographs of the project vicinity. However, site 44CM0144 was flagged as a location of interest during the visual inspection based on a change in the surrounding vegetation and what appeared to be the remains of two separate structures (stone pile and rectangular depression filled with possible chimney stones). Twenty STPs were excavated in the vicinity of the structures, but missed the suspected structure locations and produced minimal evidence of cultural activity. Following the initial survey, the area was cleared of vegetation, the STP grid was expanded, and the entire area between the two suspected structures was metal detected.

Two hundred five artifacts were recovered from 44CM0144 during the Phase IB investigation. Analysis of the site assemblage suggests it includes the remains of a dwelling or domestic farmstead with an occupation dating to the late 19<sup>th</sup> / early 20<sup>th</sup> century. The soil profile encountered in the STPs nearest to the structures indicate a high degree of integrity, including an

intact Fill that dates to the site occupation. Likewise, the presence of surface features, suggests post occupation disturbance has been minimal.

Site 44CM0144 is believed to be potentially eligible for inclusion on the NRHP under Criterion D, based on its potential to contribute new information to our understanding of regional subsistence and agricultural practices and settlement patterns. Avoidance or Phase II investigations designed to identify and explore the identities and lifeways of the site inhabitants are recommended.

#### **44CM0145 - Hobson Ridge (0.69 acres)**

Site 44CM0145 was identified based on a pearlware sherd discovered in the trench backfill following the cemetery identification survey. Inspection of the area following a hard rain revealed an additional stoneware sherd. Metal detection of the area identified eighty-one strikes in the trench fill and along the interior boundary of the cemetery investigation area. Eighteen artifacts were recovered from fifteen excavated metal detection strikes. The functional variety of the assemblage and temporally diagnostic artifacts recovered suggest 44CM0145 includes the remains of a dwelling, possibly dating from the early nineteenth century and predating the Hobson Site (44CM0139).

Additional excavations are needed to adequately define the horizontal extent and integrity of sub-surface deposits. Site 44CM0145 is believed to be potentially eligible for inclusion on the NRHP under Criterion D, based on its potential to contribute new information to our understanding of regional subsistence and agricultural practices and settlement patterns. Avoidance or Phase II investigations designed to identify and explore the identities and lifeways of the site inhabitants are recommended.

#### **44CM0146 – Edgemont (1.83 acres)**

The 1864 Gilmer Map of Cumberland County depicts the “Jones” dwelling in the approximate location of Site 44CM0146. The structure and associated outbuildings are also visible in the 1947 and 1958 aerial photographs of the project vicinity. Aerial photographs show the dwelling and one of the outbuildings located outside of the Green Ridge property. However, the western outbuilding appears to be located in the current project area.

Local informants and historic newspaper articles suggest this is the former site of Edgemont, the home of James McLaurine, and birthplace of John Singleton Mosby. Edgemont was constructed in the late 18<sup>th</sup>/early 19<sup>th</sup> century and remained in this location until 1979-80, when the home was dismantled, along with Buena Vista (Jeffries Site/44CM0136), and both structures were combined into a reconstruction of Edgemont, located approximately 4 miles east of the project area.

Visual inspection of the suspected outbuilding location found no evidence of an structure on the slope within the project area and no additional work is recommended in this location.

#### **44CM0152 – Possible Cemetery (0.1 acres)**

Site 44CM0152 is located outside of the project area and was identified based on the presence of daffodils and lilies in the vicinity of a scatter of fieldstones. The fieldstones are in no discernable pattern and no surface depressions were observed. Subsurface testing of a portion of the landform that extends into the project area found no evidence of cultural activity. Based on visual inspection, the site is interpreted as a possible cemetery. It is located outside of the project area and will not be impacted by proposed construction activities. No further work is recommended.



### ***Cemetery Survey***

A cemetery identification survey was conducted concurrently with the Phase IB survey and used machine cut trenches in an attempt to identify the location of a family cemetery referenced in historic deeds. Trenches measuring approximately ten feet in width were excavated to the base of the plow zone using a mini excavator with smooth bladed bucket. Following the discovery of a pearlware sherd after a hard rain, the area was metal detected resulting in the discovery of an additional historic archaeological site (44CM0145).

### **Hobson Cemetery**

Deeds of sale for one of the parcels included in the Hobson property mention a reservation of burial and visitation rights, but do not specifically reference the location of the family cemetery and its exact location within the 55 acre parcel is not known. A finger ridge extending southwest from the Hobson Site was thought to be the most likely location for the burial site and was the focus of a cemetery identification survey that ran concurrently with the Phase IB investigation.

During the cemetery investigation, topsoil was mechanically removed from approximately 1 acre along a ridge crest believed to be the most likely location for the cemetery, but the survey found no evidence of the burial site. After exploring the most likely location for the cemetery, the investigation was terminated. Rather than continue the previous investigation, it is recommended that any ground disturbing activities in this area be monitored by an archaeologist .



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## **APPENDIX 1: PROJECT ALTERNATIVE REPORT**



**CULTURAL RESOURCES EVALUATION:  
3 ALTERNATIVES TO THE CHOSEN  
ALTERNATIVE AT THE  
PROPOSED GREEN RIDGE LANDFILL  
CUMBERLAND COUNTY, VIRGINIA**

Surveyed for:

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Section 106 of the National Historic Preservation Act of 1969 as amended sets forth criteria for federally funded or permitted undertakings within the jurisdiction of the United States. The National Park Service (NPS) administers the Act. Each state and territory has the responsibility for administering the act and those efforts are under the direction of the State Historic Preservation Officer (SHPO). In Virginia, the Virginia Department of Historic Resources (DHR) is responsible for fulfilling these obligations.

Section 106 has implementing regulations under the Code of Federal Regulation, Title 36, Part 800 (36CFR800). In that regulatory framework, a project should identify reasonable alternatives to the proposed project area in the event that one or more of the alternatives are shown to be problematic. The reasons for a determination are based upon investigation of alternatives AND upon the weighing of the various factors that have an effect upon the undertaking.

Cultural Resources are a part of the investigation. Until such time as a comprehensive survey of the entirety of the United States is completed, the normal practice is to conduct evaluations of alternatives such that "project killers" may be identified and best-case evaluations may be made of the alternatives.

#### **The Locations of the Alternatives**

Three such alternative areas were identified for Cumberland County and the proposed Green Ridge Landfill. The chosen alternative is the  $\pm 1,178$  acre area north of Route 60 straddling Pinegrove Road and bounded generally on the east by Miller Lane. Figures 1 and 2 show the location of the three alternatives and the chosen alternative.

Alternative 1 is comprised of 783 acres in Cumberland Tax Parcels 58-A-19, 58-A-20, 58-A-22, and 67-A-69. It is located east of Cumberland Courthouse on the south side of a rounded bend on Rt. 13, the Old Buckingham Road.

Alternative 2 is comprised of 1089 acres in Cumberland Tax Parcels 52-A-20 and 52-A-21. It is located south of Route 60 at the community of Clinton. It almost abuts the chosen alternative. It is very near the Powhatan County border.

Alternative 3 is comprised of 1988 acres in Cumberland Tax Parcels 72-A-3, 72-A-4, 72-A-5, 71-A-9, 72-A-10 and 72-A-11. It is located south of Route 60, west of and abutting onto Rt. 45 and is very near the border with Buckingham County. It straddles the Willis River.

#### **Terrain Description**

Terrain features are an important part of cultural resources evaluation. Access to potable water, arable land, game animals, transportation routes for both land and water movement are vital parts of the investigation of archaeological and architectural resources locations. These are typically broken down into prehistoric and historic components.

Topographically, Cumberland County is within both the James River and Appomattox River drainages. There is basically a "T" shaped upland area that has served in the historic periods as the location of the main transportation arteries. From the north near Cartersville heading south-southeast to Cumberland Courthouse and then continuing south south-west is a ridge that today contains Rt. 45. From Cumberland Courthouse eastward is a ridge that is today traversed by Rt. 60. The Willis's River parallels the county boundary that is just west of that watercourse. It discharges into the James River. South and east of the Rt. 45/60 alignment are several large creeks that empty into the Appomattox River. Railroad development followed the ridge along Rt. 60 to Cumberland Courthouse and then southwest along Rt. 45.



Figure 1. Cumberland County Land Parcels & 3 Alternatives & Chosen Alternative.



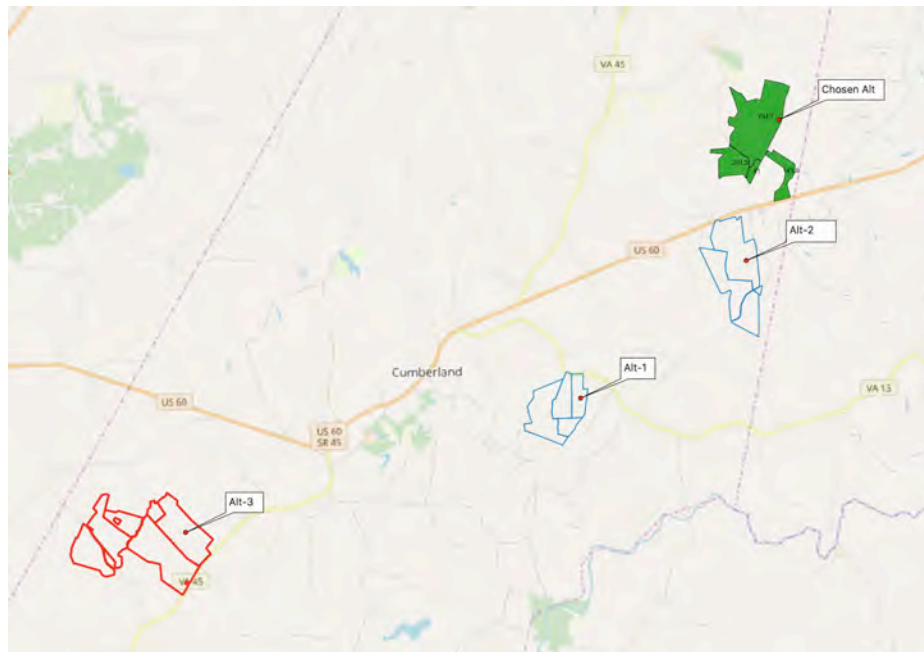


Figure 2. Cumberland County Map With 3 Alternatives & Chosen Alternative.

#### **Alt-1 Prehistoric**

The terrain in Alt-1 is highly dissected by Little Guinea Creek and its associated perennial and seasonal tributaries. Flat lands are upland erosion spurs and spur tips. Little Guinea Creek cuts through the bottom portion of the parcels and there are two intermittent streams drained by a perennial stream on the central and eastern portions.

The set of spur tips oriented perpendicular to Little Guinea Creek and those abutting the two intermittent creek swales are suitable for low-slope access by Cervidae (Deer, Elk) and Bison in their daily rounds from one watershed to another.

The expectation for prehistoric sites along the ridges, spurs and spur tips would be high due to the presence of stream cuts for hunting big game animals and for seasonal rounds for nut and berry gathering in the Archaic Period. These sites would be represented by stone chips from weapons/tool manufacture and maintenance with little expectation of subsurface deposits, although some sites do exhibit small numbers of pits.

#### **Alt-1 Historic**

The 1864 Gilmer Map of Cumberland County (Figure 3) shows Jones Upper Mill on Little Guinea Creek where it intersects a perennial stream drainage. Mrs. J. D. Isbell has a house on an upland flat and there is an unnamed structure at the edge of Rt. 13.

The 1850 Slave Schedule lists James Isbell with 47 slaves. It is not at this stage known whether the J. D. Isbell and James Isbell are the same person.

The 15' Lakeside Village 1960 USGS Quad (Figure 4) shows most of the property in forest. It also has several cleared patches that in general correspond with upland level terrain, suggesting past agricultural practices. No structures are shown on that map.

The expectation for historic sites is based on the Gilmer map that has a mill in Little Guinea Creek as well as Mrs. J. D. Isbell on the adjacent upland flat terrain that is suitable for agricultural pursuits. Another house without a name is also shown. There are at least three structures dating to the middle of the 19<sup>th</sup> century that may well extend back into the 18<sup>th</sup> century and original patenting.



Figure 3. 1864 Gilmer Map of Cumberland County Showing Alt-1.



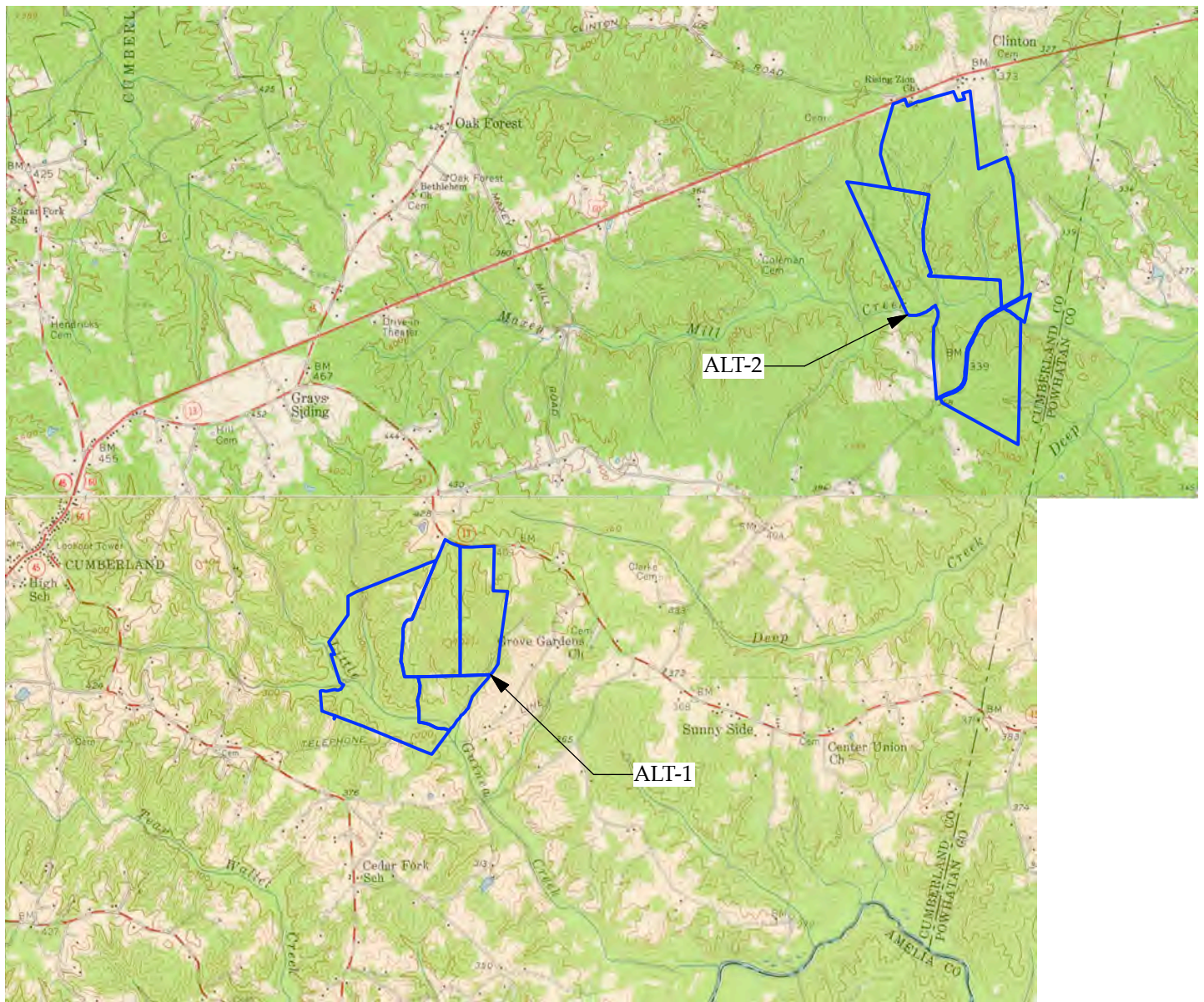


Figure 4. 1960 Lakeside Village and 1958 Jetersville 15' USGS Quad Sheets.

#### **Alt-2 Prehistoric**

The parcels are located on the south side of Rt. 60 just west of the community of Clinton. The parcels are directly across the road from Rising Zion Church. The parcels are bounded on the east and south by Rt. 654 and partially on the west by The Woods. Maxey Mill Creek cuts through the bottom 20% of the property. Two perennial streams feed the creek and cut the property into several linear strips. There are upland flats, spurs and spur tips that are suitable for prehistoric intermittent and seasonal occupation.

The expectation for prehistoric sites along the ridges, spurs and spur tips would be high due to the presence of stream cuts for hunting big game animals and for seasonal rounds for nut and berry gathering in the Archaic Period. These sites would be represented by stone chips from weapons/tool manufacture and maintenance with little expectation of subsurface deposits, although some sites do exhibit small numbers of pits.

#### **Alt-2 Historic**

The 1864 Gilmer Map of Cumberland County (Figure 5) shows William Hobson's house on the parcel south of Deep Creek. The North Fork of Deep Creek known later as Maxey Mill Creek does not have a mill, although there is a mill west of the parcels. The parcels are approximately bisected by the North Fork of Deep Creek. To either side of the creek there is arable cleared land shown on the uplands overlooking the creek and around the Hobson house.

The 15' Lakeside Village 1960 USGS Quad (Figure 6) shows Maxey Mill Creek. One of the two roads mentioned above are the probable location of the Maxey Mill. No structures are shown on the parcels, nor are there roads within the parcel part from the county road on the west side.

The expectation for historic sites is high based on the Gilmer Map. William H. Hobson owned 22 slaves and William T. Hobson owned 13 slaves in the 1850 Slave Schedule. There is a Samuel Garrett listed next in the owner sequence and there is a nearby S. Garrett to the W. T. Hobson. The presumption is that there may be both a house for the Hobson family, a house or houses at the main house and/or in adjacent fields for slaves.



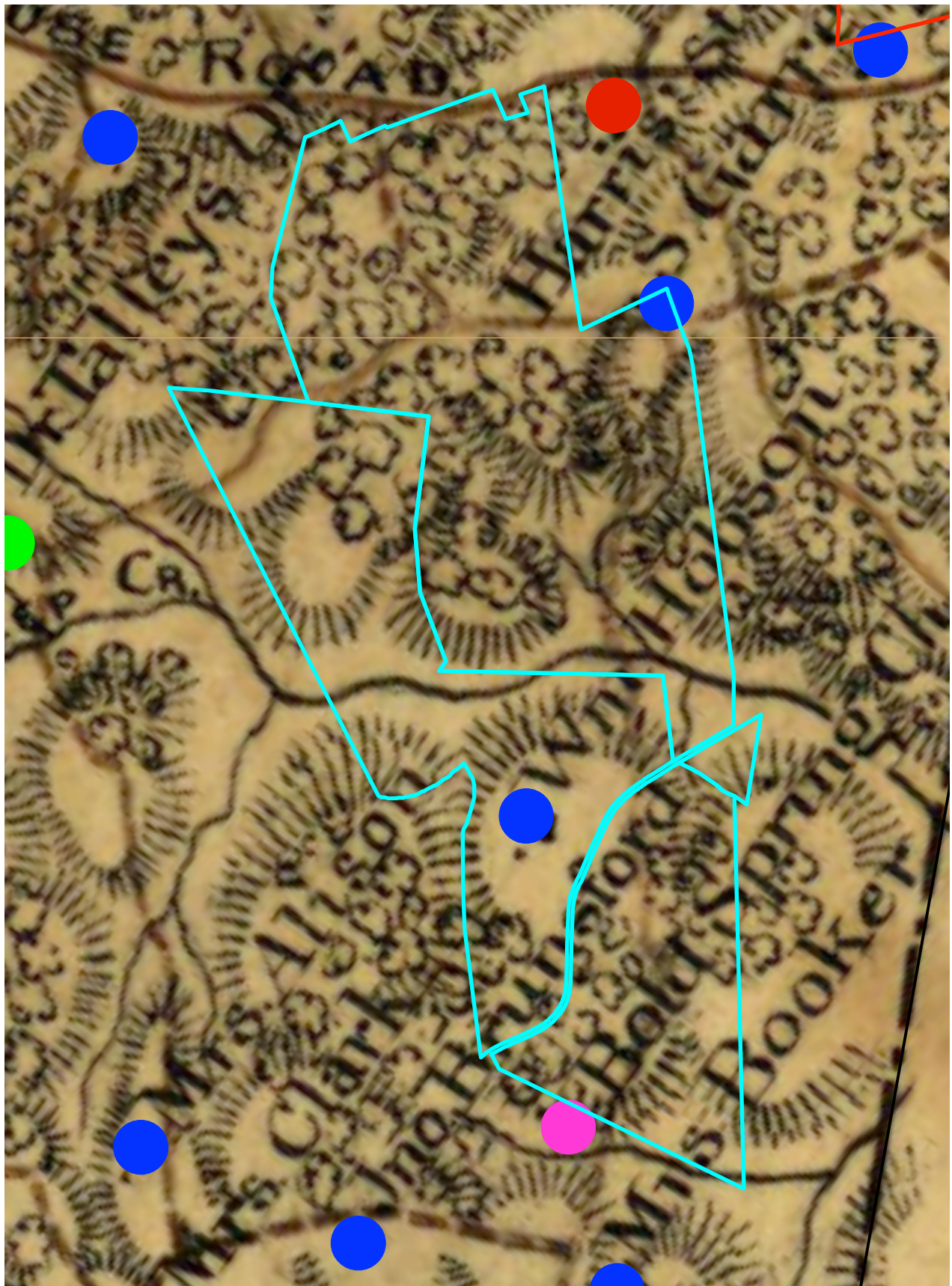


Figure 5. 1864 Gilmer Map of Cumberland County Showing Alt-2.



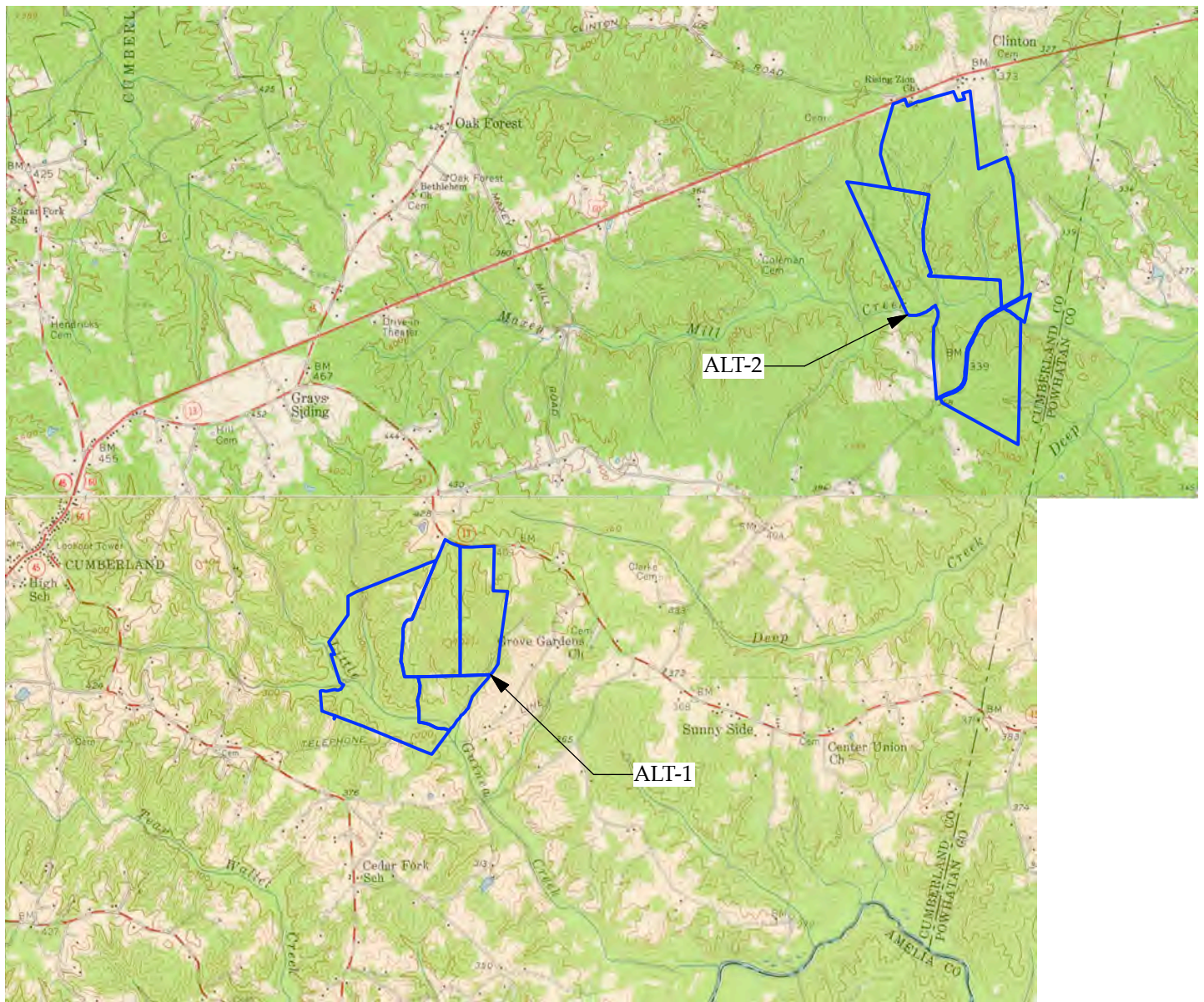


Figure 6. 1960 Lakeside Village and 1958 Jetersville 15' USGS Quad Sheets Showing Alt-2.

### **Alt 3 Prehistoric**

The parcels are located on the west side of Rt. 45 straddling the Willis's River and nearly abutting the county border with Buckingham. The parcels east of the river are highly dissected uplands with erosion tongues oriented perpendicular to the ridge and the river. Both parcels have small streams approximately bisecting them leading to the river. The river and associated floodplain would provide riparian resources for Native Americans. The stream beds have corresponding streams on the southeast side of Rt. 45 that offer low-slope access by Cervidae (Deer, Elk) and Bison in their daily rounds from one watershed to another.

The west side of the river has similar terrain, but much wider spurs and significant floodplain for settlement. The parcel adjacent to Fork Swamp has a wide flattish area abutting onto floodplain that has produced Woodland period sites in other Piedmont locations. Most of the knowledge about Woodland Period sites comes from 1950's and 1960's investigations of palisaded villages whereas more dispersed villages are hardly represented in the site inventories.

The expectation for prehistoric sites along the ridges, spurs and spur tips would be high due to the presence of stream cuts for hunting big game animals and for seasonal rounds for nut and berry gathering in the Archaic Period. These sites would be represented by stone chips from weapons/tool manufacture and maintenance with little expectation of subsurface deposits, although some sites do exhibit small numbers of pits.

The nature of Late Woodland habitation is moderately understood where large rivers and extensive floodplains offer semi-permanent village site locales. These depended upon the arable soils for their incipient horticultural lifeway. The highly dissected inland terrain has multitudes of small, probably seasonally occupied sites, hunting stations and the like. Lithic procurements sites where suitable quartz outcrops occur are also likely. The floodplain at the site is suitable for a small Late Woodland and/or Contact period site.

### **Alt 3 Historic**

The Willis River has historic canal navigation structures. The James River and Kanawha Canal system operated to Lynchburg by 1850. The Willis River Navigation began in 1774 and continued to past 1900. Just downstream from Alt 3 is Ca Ira to which a slackwater canal was built from the junction of the Willis and the James Rivers (Trout 1994). This was the head of navigation until 1816 when it was extended to Curdsville in 1816.

The 15' USGS quad (Figure 8) shows Rt. 634 crossing the river that also passes through the southwestern or upriver portion of the project. The Hillcrest 24k quad shows a road leading off Rt. 45 that also appears on the Farmville 15' and 30' USGS Quads. The road leads from Guinea Mills to the river and appears to be related to canal transport.

The 1864 Gilmer Map of Cumberland County (Figure 7) was examined to determine whether resources were present that were depicted on the map. Alt-3 borders Rt. 45 on the southeast. A straight copy and paste of the parcel boundaries was less than satisfactory as the middle of the parcel set was bisected by the Willis River and on the northeast was about 3100 feet from the northwest corner of the project set. Alt-3 did not project beyond Camp Branch. Route 632 with its characteristic bend appears on Gilmer as an additional placement point.

Placing a current property/parcel line onto an older map is seldom done with absolute accuracy. A process of "rubber-sheeting" whereby the overlaid parcel map is stretched to fit the available known points is accepted as a "best-fit" solution. With the given boundaries and anchors, there are two named houses within Alt-e and one map notation of "B.S." which may correspond to "base station" as used by surveyors currently. B.S. appears at other locations, each of which is on a roadway. Each major road has circles with dots in their centers that appear to denote where transits were located for the purposes of surveying the county. It is also possible that these were points at which shots were taken although they have far shorter line of sight distances than the map depicts.

Sources of "confusion" are a byword in historic research. Census tabulations are meant to be a list of every person residing in the United States and territories. Census takers did circuits each day. It has been observed that the spelling of names is often problematic, based on what the enumerator thought the persons name was and then how it was written. The cartographers who produced the Gilmer maps were on a wartime footing and had what can only be termed creative spellings. Mistakes of spelling and of place cannot be ruled out. In this case, the US Census had two parts: the enumeration of the people living in Cumberland County as defined by Federal Law; and the Slave Schedules that listed the owner of slaves as well as an information set about each slave, except for their names. Two such cases exist on Alt-3. O. Smith is shown on the Gilmer Map. The census lists Sion O. Smith (Assuming that Sion is actually correct). What is not known is what Smith was called in everyday life. The census would be a more formal listing while the Gilmer map could show the everyday name for the person. The transformation from the script of the earlier centuries to the far more legible and thus able to be digitized typeface is also a frequent source of error.

On the Gilmer map a Dr. Toles is shown. In the 1860 census, there is a William B. Towles who is a physician, but his name is spelled with the "w". On the slave schedules, the transliteration of slave owners showed a William B. Fowles with 20 slaves.

By listing the various spellings and then comparing where they are listed in relation to their neighbors, it is often possible to determine the location and spelling of the parties of interest. However, the dispositive spelling is in legal documents prepared by attorneys. O. Smith and Dr. Toles (Towles, Fowles) are shown on the map. Smith is near Rt. 45 and Toles is on the west side of Big Willis River. Smith's house is along Rt. 45 and he is listed as owning 10 slaves. The map shows the upland ridge that Rt. 45 centerlines and it shows cleared land on the ridge and on one erosion tongue overlooking the river. The other two erosion tongues appear as wooded.



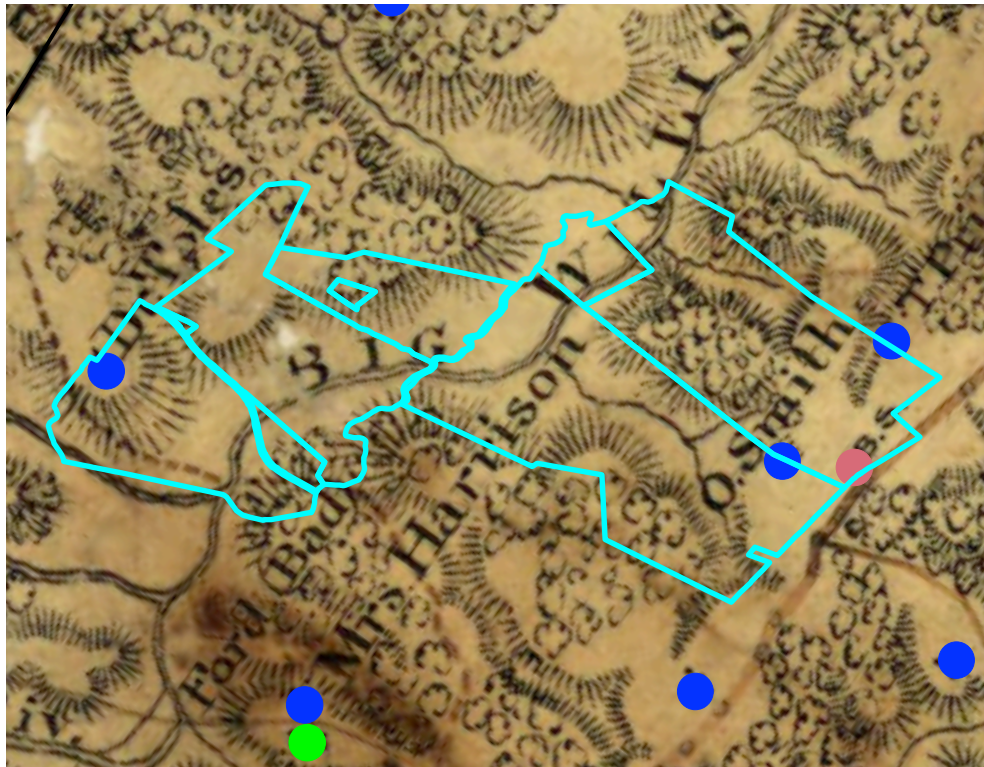


Figure 7. 1864 Gilmer Map of Cumberland County Showing Alt-3.

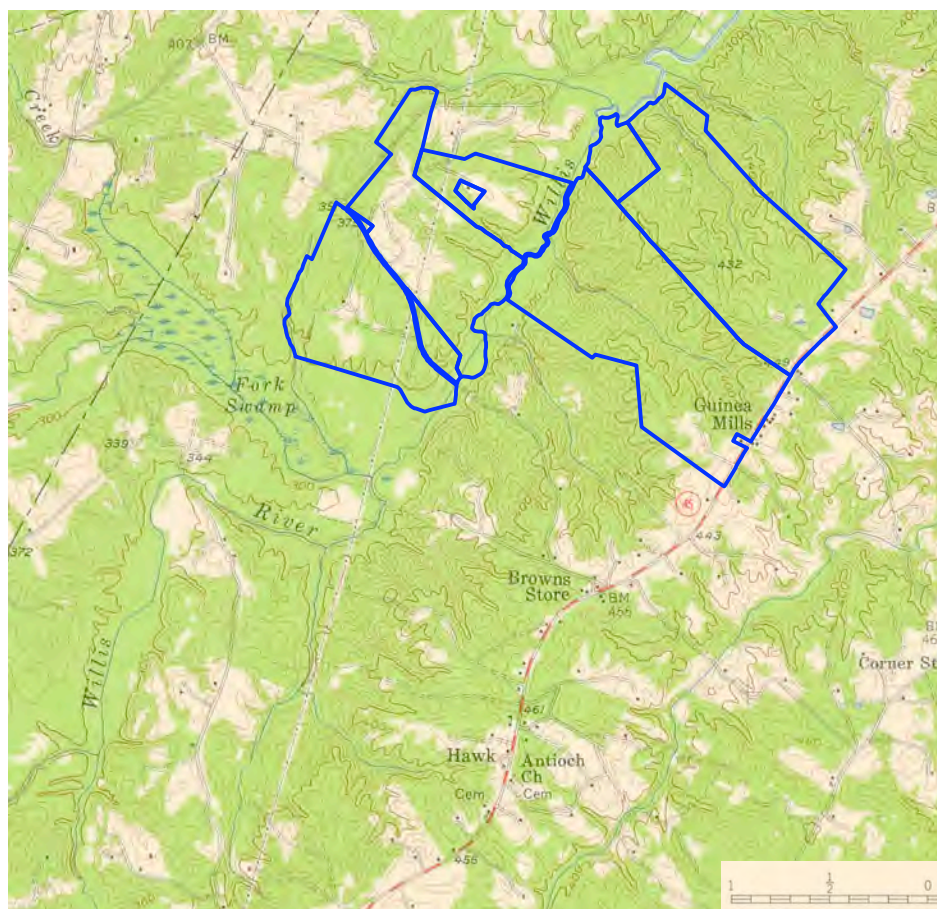


Figure 8. 1958 Farmville USGS 15' Quad Showing Alt-3.

Toles is listed as having 20 slaves in the 1860 Slave Schedule with a total value of \$16,605 and had 4 slave houses listed as well. The terrain is entirely suitable for agricultural pursuits and with the number of slaves that Dr. Toles (Towles, Fowles) owned, it is highly likely that there will be outlying slave quarters on his property. Towles property has upland ridge terrain that is open as well as erosion tongues that are wooded. The property includes a road leading to the river and crossing it, thus either a bridge or ford would be present.

In the historic period as depicted on the 1864 Gilmer Map, the land in Alt-3 is in agricultural fields, forest and floodplain. Slave ownership figures have 30 slaves on the parcels. While there will be houses in the main compound for each for the owners and slaves, there is a very high probability that there will also be separate field quarters located at a distance from the house.

The presence of Willis's River Navigation structures is highly probable, along with at least one bridge or ford.

The 1958 Farmville USGS 15' Quad (see Figure 8) shows the road across the Willis's River and shows several roads leading into the parcels adjoining Rt. 45 towards the river. There are clear patches shown that might indicate former habitation sites. One extant structure is shown at the base of the floodplain on the east side of the river and three extant structures are shown on the west side of the river on the uplands..

This property has a very high probability of structures that were extant during the Civil War and thus possibly as early as the first round of land patents for the county.

#### **Summary & Recommendations**

It is no exaggeration to say that for any acreage similar to that of the chosen alternative, the population and structural density will have similar numbers. At this point, while the names of the property owners are known but for one, additional research will need to be done to show how many people lived on these properties and when they lived there and when historic occupation started. Exhaustive research of this nature is in the vast majority of cases reserved for structures in the chosen alternative. It is certain that any 19<sup>th</sup> century structural complex will require a Phase II investigation if affected. The Gilmer Map is a snapshot in time and how far back to the first land patentees the particular parcel reaches can only be determined by a deep title search.

The prehistoric potential for the three alternatives is much higher than for the chosen alternative due to the presence of watercourses that penetrate inland from larger water courses. Any structure or boat remnant associated with the historic Willis's River Navigation is without doubt going to require additional investigation.

The historic potential for Alt-1 and Alt-2 is lower than that of the chosen alternative and higher for Alt-3 than that of the chosen alternative.



Combining the potential for archaeological sites for each of the alternatives, Alt-1, Alt-2 and Alt-3 all have a higher potential for the presence of archaeological sites based upon standard settlement models than the chosen alternative.

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## **APPENDIX 2: VIEWSHED ANALYSIS**





## Memorandum

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**To:** Browning and Associates  
**From:** Lynn Klappich, Program Manager  
**Date:** February 12, 2020  
**Project Name:** Green Ridge Recycling and Disposal Facility – Cumberland County, VA  
**Project Number:** 18020117-030102  
**Subject:** Viewshed analysis – Modified analysis – Appendix 2 – Phase I report  
**cc:** Mike Futrell

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On February 10, 2020, Draper Aden Associates GIS personnel completed a revised viewshed analysis for the above referenced facility. The revision was required as the initial analysis had assumed two disposal units and a consistent height above existing ground as a design was not available. At this time a conceptual design has been completed for the western fill area and this design was utilized in the modified analysis.

Below is a description of our methodology and findings for the viewshed analysis.

**Methodology** – A viewshed analysis was performed for the area surrounding the proposed Green Ridge landfill to determine if the completed landfill would be visible from archaeological sites and standing structures that are either on the National Register of Historic Places (NRHP) or eligible for inclusion on the NRHP.

Lidar data from 2016 for all areas within 5 miles of the proposed landfill property were acquired from the Virginia Geographic Information Network (VGIN) lidar download FTP site. The data set is formally referred to as the "USGS Chesapeake Bay VA QL2 LiDAR Project". We acquired the raw point cloud in LAS format. The same data set can also be downloaded from the USGS website:

<https://viewer.nationalmap.gov/basic/>

The viewshed analysis is a common tool in GIS analysis of topography. Historically the challenges have been data resolution and approaches to taking forest cover into account. A 'bare earth' model, or a digital elevation model (DEM) was often all that was available. If a land use or forest cover layer existed for a study site the model could be augmented by adding elevation to the forested areas in order to approximate the tree canopy. With the availability of lidar it is possible to accurately model features

sitting upon the earth surface. This is typically referred to as a digital surface model (DSM) and represents the upper surfaces such as tree canopy and building roofs. Using this surface makes viewshed analysis much more representative of reality.

Our first step was to convert the lidar point cloud into a DSM raster layer. We chose a grid or cell size of 10-feet as a reasonable generalization of tree canopy and more than sufficient for bare ground representation. Using ArcGIS lidar tools, 'LAS Dataset to Raster', we calculated the DSM using a MAXIMUM cell assignment type. Basically, this assigned the DSM cell elevation as the highest point falling in the cell.

The current proposed finished landfill includes one waste management area and has a distinct peak at an elevation of 690 MSL. For a conservative measure we set a viewpoint above the peak at an elevation of 695 MSL. We then used the ArcGIS Viewshed Tool Set, 'Viewshed' to generate the standard visible/not-visible derivative layer based upon the DSM. This layer is typically shown as green/red, though often made partially transparent for evaluation of individual locations, so often it will be shown as a lime/pink overlay.

The majority of visible features are tree canopy, especially beyond the first mile. The forest cover effectively blocks a sight line to other features. Each of the sites were then manually reviewed with aerial imagery and terrain models to determine if the viewshed analysis made sense and corresponded with the aerial imagery. This provided a secondary and different review of whether the mound of the proposed Green Ridge landfill would be visible or not. Again, the review showed that the line of sight to the proposed landfill is typically blocked by trees that are in relative near proximity to the sites.

The resulting viewshed analysis is shown in Figure 2. Areas shaded in pink will not have a direct line of sight to the finished waste management area. Based on this analysis, the landfill will be potentially visible from only one resource currently listed or eligible for inclusion on the National Register of Historic Places (DHR ID 024-5082 - Pine Grove School) depending on viewer position and status of the tree line across the road.

Attachment 1 – Figure 1 - Viewshed Analysis

## **ATTACHMENT 1**



Assumed finished elevation at 690' (above MSL)

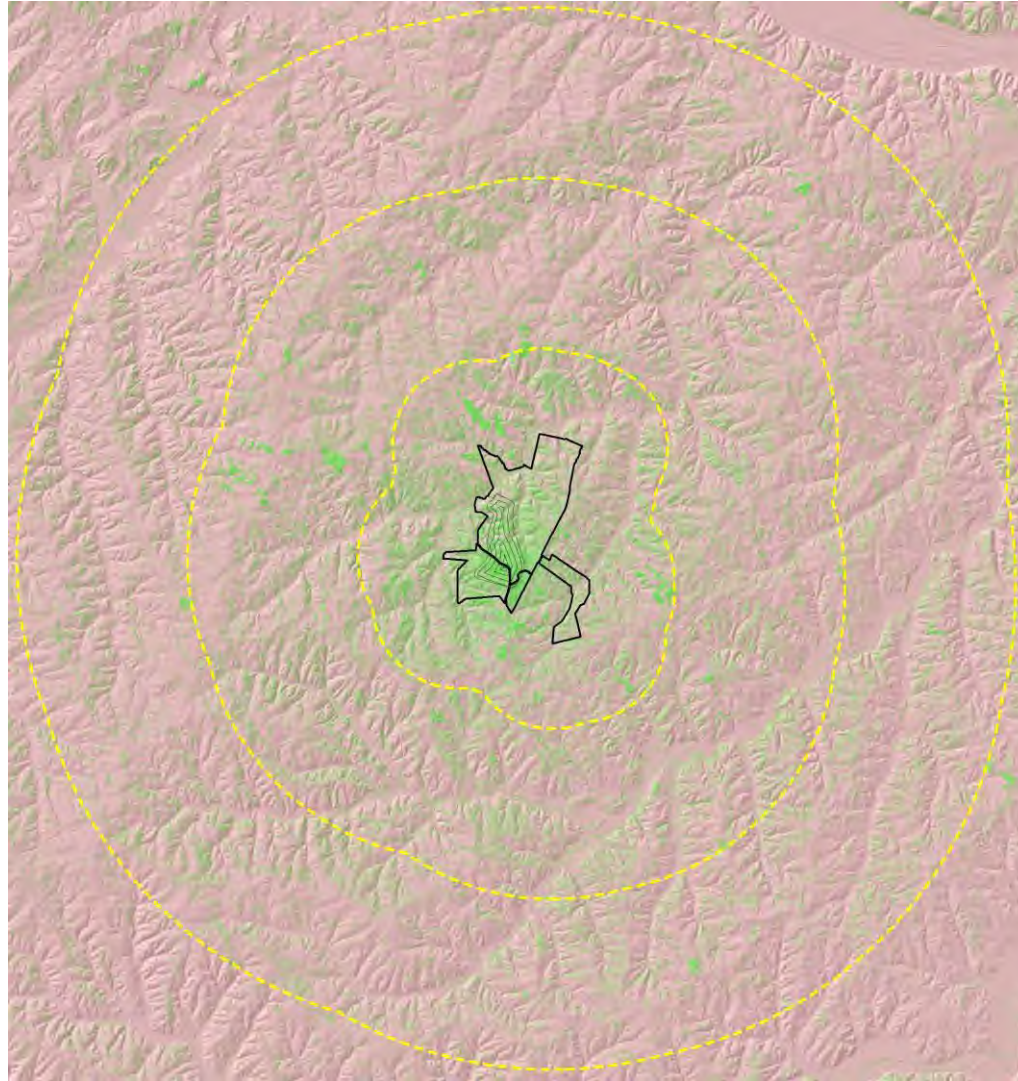


Figure 1 – Viewshed Analysis – Green Ridge Landfill – Buffers at 1, 3, and 5 miles (Areas in Pink are not visible from the finished landfill)

## **APPENDIX 3: VIEWSHED ANALYSIS DHR – PHASE I RESPONSE**



**Viewshed Analysis**  
**DHR - Phase 1 Response**  
**Green Ridge Recycling and Disposal Facility, LLC**  
**Permit No. 626**  
**Cumberland County, Virginia**



Prepared For:  
Green Ridge Recycling and Disposal Facility, LLC  
12230 Deer Grove Road  
Midlothian, Virginia 23112

Prepared By:  
Draper Aden Associates  
1030 Wilmer Avenue, Suite 100  
Richmond, Virginia 23227

September 29, 2020  
Final



**Draper Aden Associates**  
*Engineering • Surveying • Environmental Services*



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APPENDIX 2           Concept Elevations of Landfill (Figure Appendix 2)

APPENDIX 3           Method 1 - Drone Flight Details and Observations (Table 2)

APPENDIX 4           Method 2 - Analytical Results (Figures 1 through 14)

# VIEWSHED ANALYSIS

Green Ridge Recycling and Disposal Facility, LLC  
Cumberland, Virginia

## 1.0 INTRODUCTION AND STUDY METHODS

### 1.1 Introduction

As part of the permitting process for a proposed solid waste facility in Cumberland County, Virginia, Green Ridge Recycling and Disposal Facility, LLC ("Green Ridge") engaged Browning & Associates, Ltd. to conduct a Phase 1 Cultural Resources Investigation, DHR#2019-0180, dated February 2020, which was submitted to the Virginia Department of Historic Resources (DHR)<sup>1</sup>. This document contained a desktop GIS viewshed analysis to evaluate visual impacts from the proposed landfill on nearby cultural resources.

In its April 30, 2020 review of that submittal, DHR identified 13 sites for additional Phase 1 analysis. **APPENDIX 1** provides a list of these sites and general information about them, and includes Figure 1 illustrating general site lines from the sites to the facility. This list also includes Pine Grove School, which is listed on the National Historic Register. As part of the response to DHR's initial review, Green Ridge engaged Draper Aden Associates to further evaluate, in more extensive detail, the visibility of the proposed solid waste facility from the sites identified. As part of that evaluation, Pine Grove School was included, making a total of 14 sites further evaluated.

**APPENDIX 2** provides an illustration of the concept for the facility that identifies various elevations/heights of the facility at various points along the ridge. This information formed the basis of this analysis.

Draper Aden Associates evaluated the viewshed impacts through two methods: Method 1 – used a drone-directed balloon with visual observations from points of interest on or adjacent to the 14 sites. Method 2 – used a more detailed geographic information systems analysis. Note the term elevation is referenced to NAVD88 (Above Mean Sea Level).

### 1.2 Method 1 - Visual Observations - Balloon

For Method 1, Draper Aden Associates utilized its in-house drone capabilities and field technicians. Pilots, licensed by the FAA, flew the programmed drone to the coordinates and elevations required for the analysis. Two different launch locations were utilized. The first launch location was used to bring the drone-carried balloon that was three feet in diameter to a height of 328 feet above ground level (Elevation 690) near the southern extent of the proposed landfill. This represents the absolute highest point of the waste facility when completely filled. A second launch site was used to bring the balloon to a height of 173 feet above ground level (Elevation 500) at a more northerly location on the proposed landfill site, where a lower elevation point would be located.

---

<sup>1</sup> Green Ridge – Phase 1 Cultural Resources Investigation, Cumberland County, Virginia, Browning and Associates, LTD, February, 2020, DHR # 2019-0180

The locations of the balloon positions are as follows:

South Test Site:	37.558280	-78.126152
North Test Site:	37.568716	-78.125882

The drone used in the study is pictured below.



*M600 by DJI unmanned aerial vehicle (drone)*



*Drone in flight, with red balloon in tow*

When the three foot balloon was aloft, observations in the direction of the proposed landfill were made, and notes taken about the sight line (i.e. hidden by trees, other side of topographic divide, etc.). All sightline photographs were taken from public right of way adjacent to or nearest to the site being evaluated. The list of specific observation points is provided in **APPENDIX 3**. The balloon was not seen at any location. During this exercise, sightlines were observed and documented with photographs.

This exercise was very useful for analyzing visibility for the closer sites, such as Pine Grove School. While the balloon flight was especially helpful for sites closer to the facility, Draper Aden Associates determined that a second evaluation method should be used as well, given that many of the sites being evaluated were in excess of a mile from the proposed facility.

Method 2 was initiated for all 14 sites.

### **1.3 Method 2 - ArcGIS Analysis**

Under Method 2, Draper Aden Associates used ArcGIS 3D Analyst software to construct a line of sight model for each DHR site based on their given geographic coordinates. This was comprised of two parts. 3D sight lines were drawn from each specific site starting at an elevation 5.5 feet above ground level (eye height) and continuing to the top elevation of the proposed facility at 328 feet above ground level. This line was then intersected with a digital surface model of all vegetation derived from lidar data. The result was point locations where the sight line passed through the tree-tops.

Draper Aden Associates then created a partial fly-through model for each site that allowed a 'camera' to be moved along the sight line. Graphics were captured at the beginning of each of these lines to illustrate the degree to which the tree cover blocked sight of the proposed facility's top elevation. Where available,



field photographs, taken to evaluate and document sightlines from these locations during Method 1 above, are included side by side on the figures.

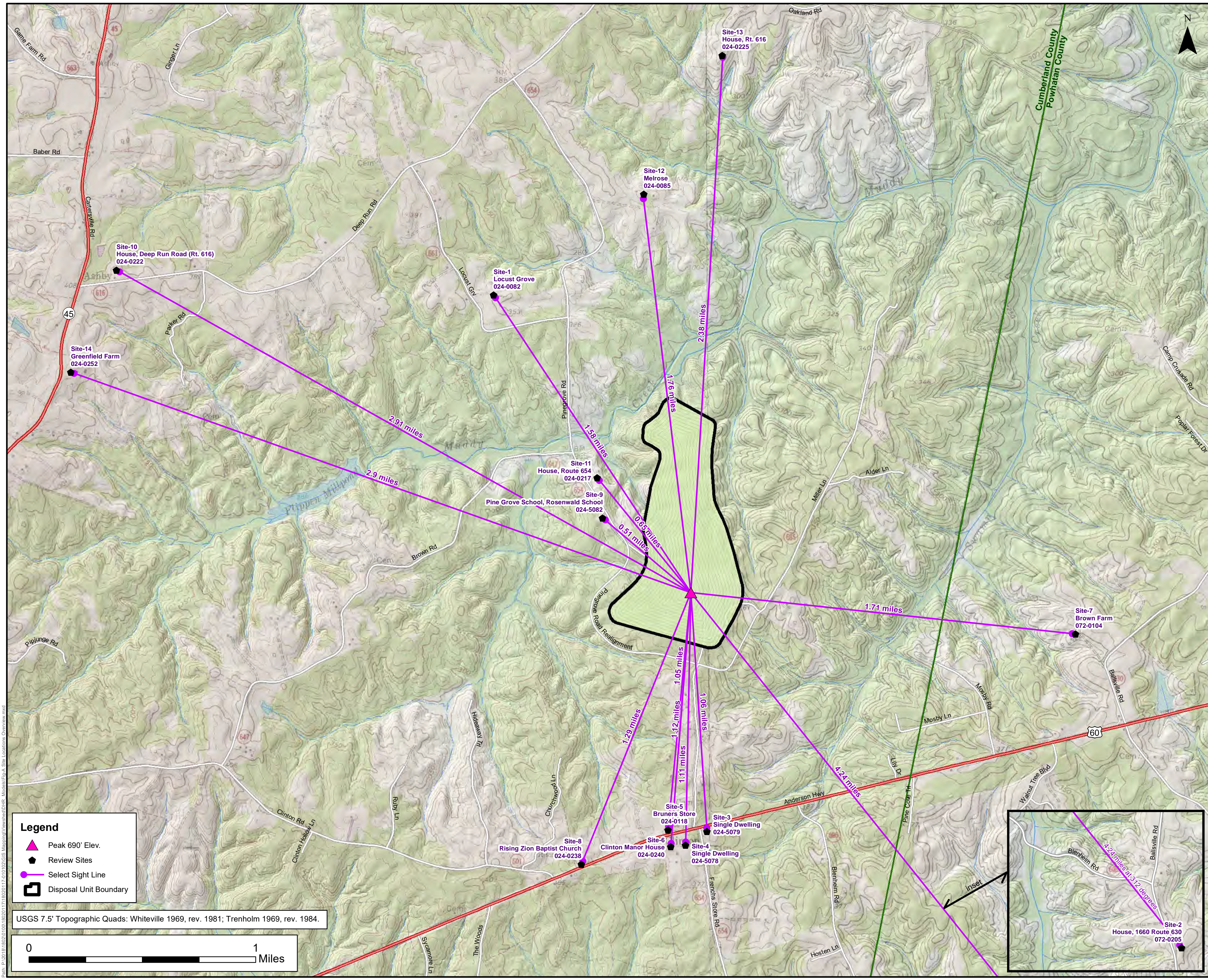
A complete analysis page for each DHR site is provided in **APPENDIX 4**. Note that the site line is taken from the side of the main structure nearest to the landfill. Photos were not taken at the same point but taken from the public right of way in the general direction of the site line. (Photos were taken during Method 1 evaluation where only public right of ways were accessed.) Each figure includes a dot indicating the spot that the photo was taken and an arrow indicating the general direction of the photo. Thus, the photo and the graphic may not match directly. The photos were included to provide some local context for the sites.

Draper Aden Associates would note that the lines of sight under this method were determined by the height of the existing vegetation. This likely represents a worst case scenario because the top elevation of the waste facility will not be achieved for decades, giving smaller existing trees decades to increase in height. It also does not take into consideration any supplemental evergreen trees that will be planted in the facility's buffer.

## **APPENDIX 1**

**DHR SITE LOCATIONS AND INFORMATION  
(TABLE 1); FIGURE A - GENERAL SITE LINES**







**GREEN RIDGE RECYCLING AND DISPOSAL, LLC  
VIEWSHED ANALYSIS BY DRONE-DIRECTED BALLOON**

**TABLE 1  
SITE IDENTIFICATION**

Site	Physical Address	Owner	Property Name	Year Built	DHR_ID	Historic District	NR Eligibility	Lat and Long	Acres	Tax Map #
1	109 Locust Grove Road, Cartersville, VA 23027	Martin, Gary Fleming	Locust Grove	1789	024-0082			37.577123, -78.141884	115	037 A 61
2	1660 Ballsville Rd Powhatan, VA 23139	Fairview Farm Holdings LLC	House, 1660 Route 630	1915	072-0205			37.509810, -78.078188	2.66	035-17B
3	169 Anderson Highway, Cumberland, VA 23040	Hicks, Bryan Keith	Single Dwelling, 169 Anderson Highway	Not listed	024-5079			37.542774, -78.124837	2.5	044 A 48
4	185 Anderson Highway, Cumberland, VA 23040	JCM III, LLC	Single Dwelling, Intersection of Anderson Highway and French's Store Road	Not listed	024-5078			37.542570, -78.126154	32.5	044 A 47
5	196 Anderson Hwy Cumberland, VA 23040	Griffith, Kenneth W.	Bruners Store	Not listed	024-0118			37.542871, -78.128038	1	044 A 46
6	199 Anderson Highway, Cumberland, VA 23040	Marion, Michael William	Clinton Manor House	Not listed	024-0240			37.541788, -78.127821	4	044 A 44
7	2421 Ballsville Rd Powhatan, VA 23139	Clark, Michael	Brown Farm	1840	072-0104			37.555285, -78.095241	121.3	022-3
7.5	2423 Ballsville Rd Powhatan, VA 23139	Clark, Michael		2001	Adjacent Property			37.555855, -78.093589	1	022-13M
8	262 Anderson Hwy, Cumberland, VA 23027	Rising Zion Baptist Church	Rising Zion Baptist Church	2002	024-0238			37.540688, -78.135005	1	052 A 10
9	267 Pinegrove Road, Cumberland, VA 23040	Agee Miller Mayo Dungy Family Assoc	Pine Grove School, Rosenwald School, 267 Pine Grove Rd (Route 654)	Not listed	024-5082	Rosenwald Schools in Virginia MPD	DHR Evaluation Committee: Eligible	37.562832, -78.133189	4	044 A 17
10	29 Deep Run Road, Cartersville, VA 23027	Sethi, Ashish	House, Deep Run Road (Rt. 616)	2005	024-0222			37.578801, -78.172178	9.6	036 A 26
11	296 Pinegrove Road Cumberland, VA 23040	Scott, Howard Estate	House, Route 654	1880	024-0217			37.565400, -78.133613	102.88	044 A 18
12	530 Pinegrove Road, Cartersville, VA 23027	Agee, Sunny, Martin & Martin, Edward	Melrose	1868	024-0085			37.583535, -78.129786	328	037 A 70
13	618 Deep Run Road Cartersville, VA 23027	Walton, Herman Leland, Jr.	House, Rt. 616	Not listed	024-0225			37.592386, -78.123428	60	037 A 27
13.5	618 Deep Run Road Cartersville, VA 23027	Walton, Herman Leland, Jr.	House, Rt. 616	2018	Adjacent Property			37.592386, -78.123428	48.57	037 A 26
14	754 Cartersville Road, Cumberland, VA 23040	Cox, S. Barbee III	Greenfield Farm	1920	024-0252			37.572283, -78.175876	197	036 A 17

Not DHR Site

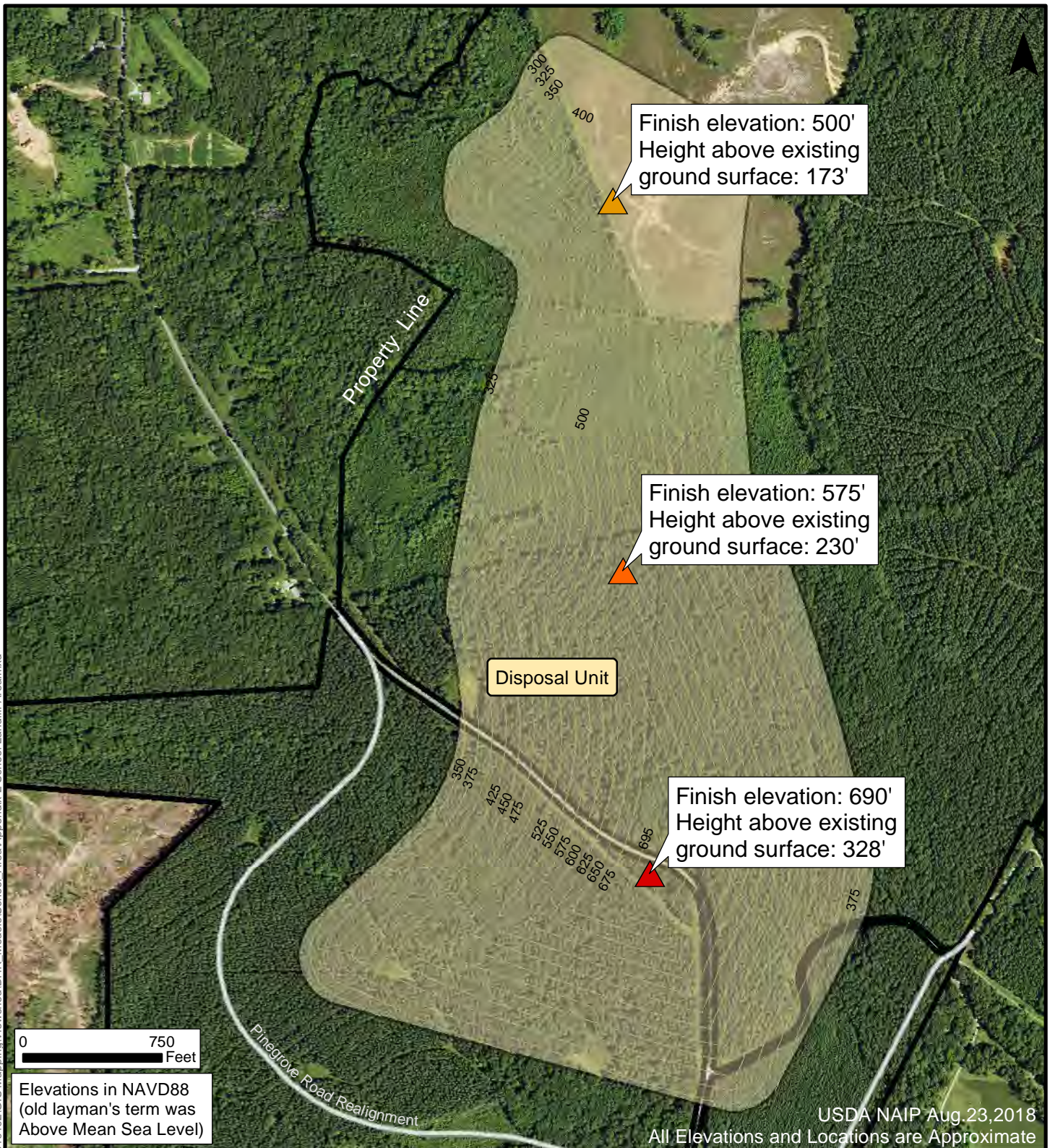
Acres not listed on tax sheet, determined by other means.

**APPENDIX 2**

**CONCEPT ELEVATIONS OF LANDFILL**  
**(Figure Appendix 2)**



Path: P:\2018\18020100\18020117\18020117-010102\GIS Mapping\Views\shed\DHR Models\School Area\Appendix-2 School-Landfill-Area.mxd



## Concept elevations of landfill

Green Ridge  
Recycling and Disposal Facility, LLC  
Cumberland Co., VA

SCALE: 1" = 750'

PROJECT: 18020117-140102



## Draper Aden Associates

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Raleigh, NC  
Fayetteville, NC  
Northern Virginia  
Virginia Beach, VA

DESIGNED: LPK  
DRAWN: SMF  
CHECKED: LPK  
DATE: 09-22-20

APPENDIX

2



### **APPENDIX 3**

#### **METHOD 1 - DRONE FLIGHT DETAILS AND OBSERVATIONS (TABLE 2)**

**GREEN RIDGE RECYCLING AND DISPOSAL FACILITY, LLC**  
**VIEWSHED ANALYSIS BY DRONE-DIRECTED BALLOON**  
**JUNE 24, 2020 - Date of Flight**

**TABLE 2**  
**METHOD 1 - OBSERVATIONS**

Site	Possible DHR site	Address or Road Segment	Description	Observation Point	Observations	Balloon Visibility					
						Time	690'	Distance*	Time	500'	Distance*
1	YES	109 Locust Grove Road, Cartersville, VA 23027	Known as "Locust Grove". Observation from intersection of suspected 109 driveway and Locust Grove Road - 850 feet due west of house.	Between mailboxes 111 and 106 on west side of road.	No mailbox for 109 visible. Driveway to east of public road suspected to be 109. House not visible from public road. View towards landfill site obscured by tall trees on southwest side of Locust Grove Road. View from house unknown. Google Earth shows large field south of house - so view will be much different than from observation point.	9:52 AM	NO	1.58	1:10 PM	NO	1.14
2	YES	1660 Ballsville Rd Powhatan, VA 23139	West side of Ballsville Rd, yellow house/wedding venue called "fairview farm". Paved driveway with chain across.	Driveway, 320' from front of dwelling	Sight line northwest obstructed. Tree line on west side of the road obstructed view. Power poles and wires visible going to dwelling. Property approximately 2.66 acres.	9:20 AM	NO	4.24	1:10 PM	NO	4.6
3	YES	169 Anderson Highway, Cumberland, VA 23040	South side of Rt 60, House/ Auto repair business, No Dump signs, Man in yard asked if I needed help, Corner of Frenchs Store Road.	Front yard 120' in front of the house	Sight line north obstructed across Rt 60. Tree line on north side of the road obstructed view. Power poles and wires visible. Property approximately 2.5 acres.	9:20 AM	NO	1.06	1:12 PM	NO	1.79
4	YES	185 Anderson Highway, Cumberland, VA 23040	South Side of Rt 60 OLD Abandoned House, Mostly cleared lot that extends across Rt 60 to the north side of Rt 60 hay field.	Front of house 280' at Rt 60	Sight line north clear over hay field and up Pine Grove Road across Rt 60 North. Property approximately 35 acres.	9:19 AM	NO	1.11	1:10 PM	NO	1.85
5	YES	196 Anderson Hwy Cumberland, VA 23040 Burners Store	North Side of Rt 60 Commercial Building "Country Line Granite". Appears to be old store building facing Rt 60 looking south. Metal roof, Additional large commercial building behind building close to the road.	Front of building 50' at Rt 60	Sight line north looking behind structure clear over hay field. Property approximately 1 acre.	9:24 AM	NO	1.05	1:10 PM	NO	1.8
6	YES	199 Anderson Highway, Cumberland, VA 23040 Clinton Manor House	South side of Rt 60 Old House, yard is well kept house in poor condition.	Front of house 240' at Rt 60	Sight line clear over hay field.	9:23 AM	NO	1.12	1:04 PM	NO	1.86

\*Distance: approximate distance in miles from balloon to observation site.

Site	Possible DHR site	Address or Road Segment	Description	Observation Point	Observations	Balloon Visibility					
						Time	690'	Distance*	Time	500'	Distance*
7	YES	2421 Ballsville Rd Powhatan, VA 23139	West Side of Ballsville Rd. OLD white farm House, hay and corn fields around house.	Driveway in front of house 950' away, beside Ballsville Road.	Sight line northwest clear over hay/corn field. Power lines visible. Approximately 121.13 acres.	9:50 AM	NO	1.71	1:45 PM	NO	2
8	YES	262 Anderson Hwy, Cumberland, VA 23027 Rising Zion Baptist Church	North side of Rt 60 Church Building Rising Zion Baptist Church, church building with grave yard on side, looks like a newer building County records list built in 2002.	Front and side of building 100' away	Sight line north looking behind the building was clear. Property approximately 1 acre.	9:28 AM	NO	1.29	1:00 PM	NO	1.98
9	YES	267 Pine Grove Road, Cumberland, VA 23040	Known as Pine Grove School. Observation from intersection of driveway and Pine Grove Road, 110 feet northeast of school.	Road Views	Tall trees on east side of Pine Grove Road obscure view to both test locations. View from school likely similar; however. school site is at a higher elevation on the property and may have a slightly different viewshed than the observation point.	9:25 AM	NO	0.51	1:16 PM	NO	0.55
10	YES	29 Deep Run Road, Cartersville, VA 23027	South Side of Deep Run Road, hedges along south side of road bordering field. Trees In front of house at 29 Deep Run Road.	across road from front of house 229' from front steps approx.. 37°34'40.8"N 78°10'19.6"W	Photos taken from south side of Deep Run Road from breaks in hedge. View across field to the south. Wood lot of 104 Parker prominent in all southern views.	9:20 AM	NO	2.91	1:06 PM	NO	2.61
11	YES	296 Pine Grove Road Cumberland, VA 23040	Abandoned house on east side of Pine Grove Road. Observation from intersection of driveway and Pine Grove Road, 260 feet southwest of house.	Road Views	Tall trees along Pine Grove Road obscure some view, although at observation point there is a power line cut that enables more open views to the south, toward the 690 test site. House is within woods and has very limited view towards either test site due to thick woods. House seems to be at a slightly lower elevation than observation point, so observation point likely is a reasonable reflection of the viewshed from the house.	9:28 AM	NO	0.65	1:16 PM	NO	0.48
12	YES	530 Pine Grove Road, Cartersville, VA 23027	Known as "Melrose". Observation from intersection of driveway and Pine Grove Road, 1180 feet west of house.	Road Views	Although observation point is far from house, the view toward the sites is to the south across open fields for both locations, so it is likely this observation location reflects the viewshed from the house as well. If a balloon was seen at this location, it would likely be seen at house as well.	10:35 AM	NO	1.76	1:07 PM	NO	1.1



Site	Possible DHR site	Address or Road Segment	Description	Observation Point	Observations	Balloon Visibility					
						Time	690'	Distance*	Time	500'	Distance*
13	YES	618 Deep Run Road Carterville, VA 23027	Leland Martin Herman Property. Observation point is at intersection of driveway, Deep Run Road (616) and Oakland Road (655). At sharp bend in Deep Run Road, and approximately 1700 feet north of the cluster of buildings/dwellings shown on the property.	Road Views	Observation point is at height of land, elevation 364 feet per USGS map, with a clear view south toward site and both balloon test locations. No trees from this location would obscure view, however no balloon sightings occurred. House sits at a lower elevation, (approx. 340') closer to site. It is likely that if no sighting occurs at the driveway/public road intersection, then no sighting would occur at house. This location also serves as a viewpoint along Deep Run Road.	10:25 AM	NO	2.38	1:00 PM	NO	1.1
14	YES	754 Cartersville Road, Cumberland, VA 23040	land slopes up from 45 to the House and outbuildings, Main house surrounded by wind break trees. Sightline possible from property.	Corner of 45 and private drive in to 768 Cartersville 500 feet from front of 754 Cartersville. Pictures taken between fence and 768 mailbox Approx. 37.573640, - 78.176587	From public right of way, land rises and buildings obscure parts of southeastern sky, but wood lot at 104 Parker directly to the east would obscure sighting from 754 Cartersville eastern fields. Main house surrounded by wind break of trees. Sight line clear over fields.	9:46 AM	NO	2.90	1:09 AM	NO	2.78

\*Distance: approximate distance in miles from balloon to observation site.

**GREEN RIDGE RECYCLING AND DISPOSAL FACILITY, LLC  
VIEWSHED ANALYSIS BY DRONE-DIRECTED BALLOON  
JUNE 24, 2020**

**TABLE 3  
BALLOON FLIGHT DETAILS**

**Drone Team:**

Alexis Ramsey  
Jeremy Dunn

**Observation Team:**

Ernie Hoch  
Ken Bannister  
Joe Marr  
Thomas Hall

<b>Flight</b>	<b>Balloon Up South</b>	<b>Balloon Down 37.558280,-78.126152</b>	<b>Elevation</b>	<b>*AGL</b>
1	9:18 AM	9:30 AM	690	330
2	9:46 AM	10:03 AM	690	330
3	10:23 AM	10:42 AM	690	330
4	11:28 AM	11:52 AM	690	330

<b>Flight</b>	<b>Balloon Up North</b>	<b>Balloon Down 37.568716,-78.125882</b>	<b>Elevation</b>	<b>*AGL</b>
5	1:02 PM	1:20 PM	500	170
6	1:45 PM	2:05 PM	500	170

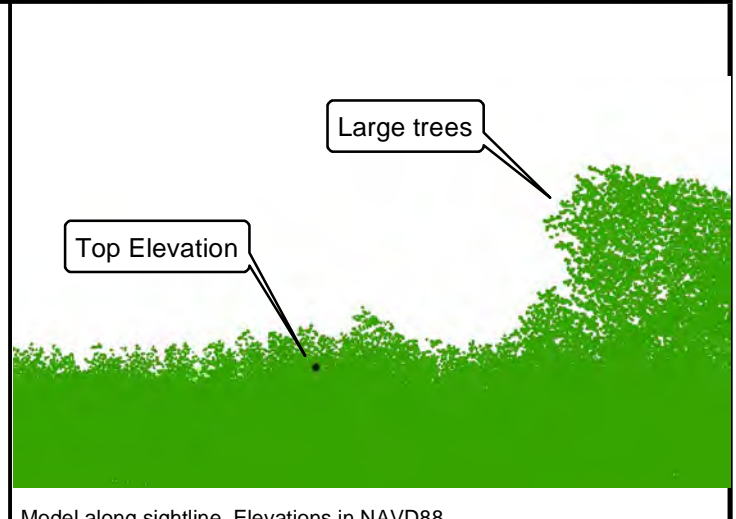
<b>Flight</b>	<b>Other Flights</b>	<b>For</b>	<b>Elevation</b>	<b>AGL</b>
1	Small Drone	Photography	690	330
2	Small Drone	Photography	500	170

\*AGL - above ground level

## **APPENDIX 4**

### **METHOD 2 - ANALYTICAL RESULTS (FIGURES 1 THROUGH 14)**





**Site-1, Locust Grove**  
**DHR ID# 024-0082**  
**Visibility Model**

Green Ridge  
 Recycling and Disposal Facility  
 Cumberland Co., VA

SCALE:  
 PROJECT: 18020117-140102



**Draper Aden Associates**  
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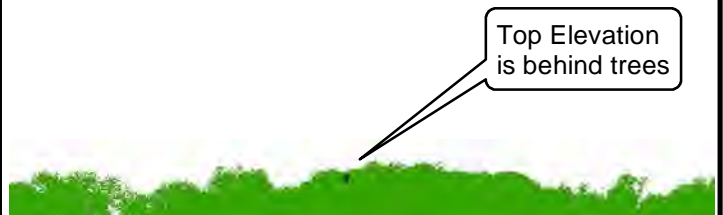
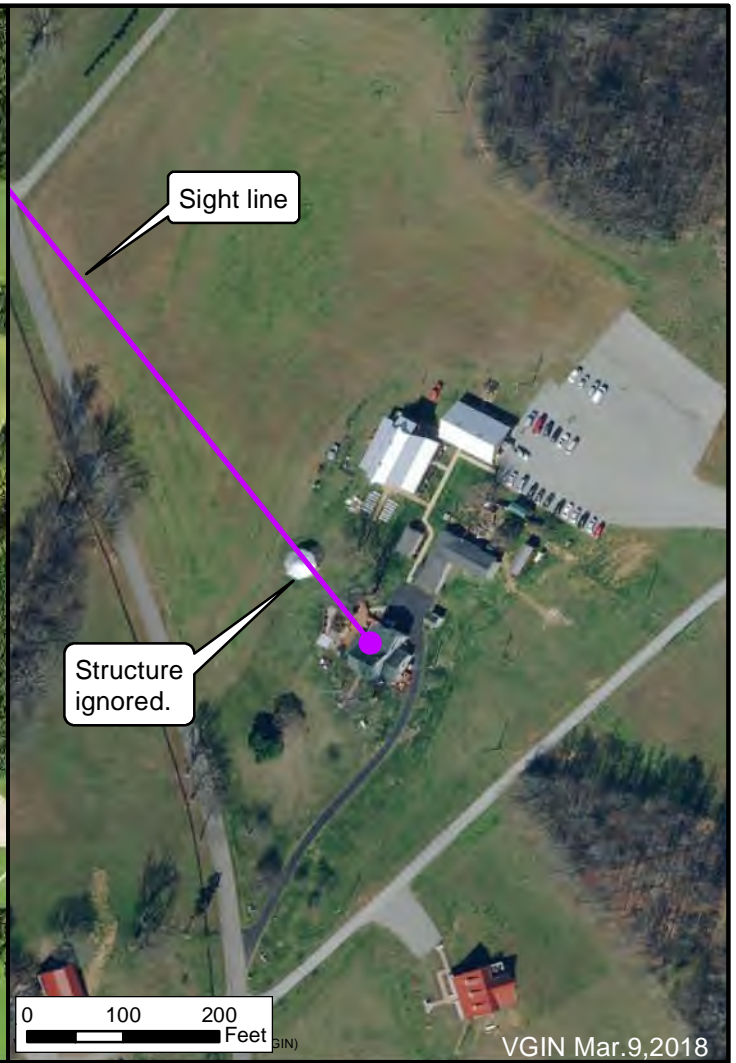
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 DRAWN: SMF  
 CHECKED: LPK  
 DATE: 09-28-20

**FIGURE**  
**1**

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Model along sightline. Elevations in NAVD88

**Site-2, Fairview Farms**  
**DHR ID# 072-0205**  
**Visibility Model**

Green Ridge  
Recycling and Disposal Facility  
Cumberland Co., VA

SCALE:

PROJECT: 18020117-140102



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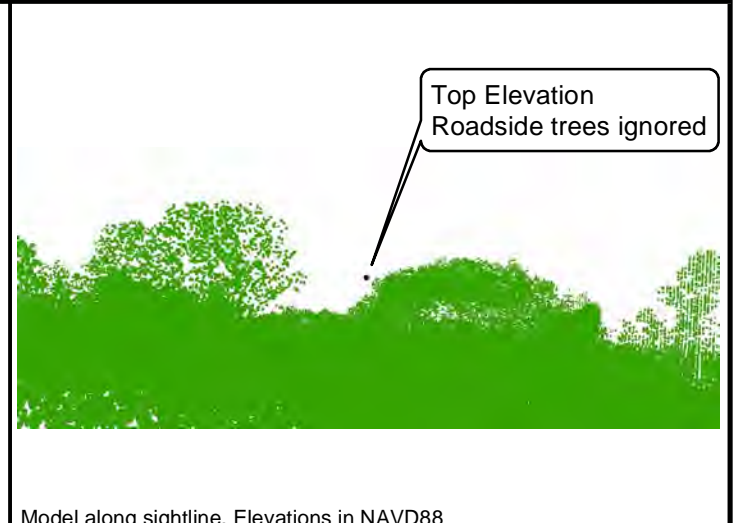
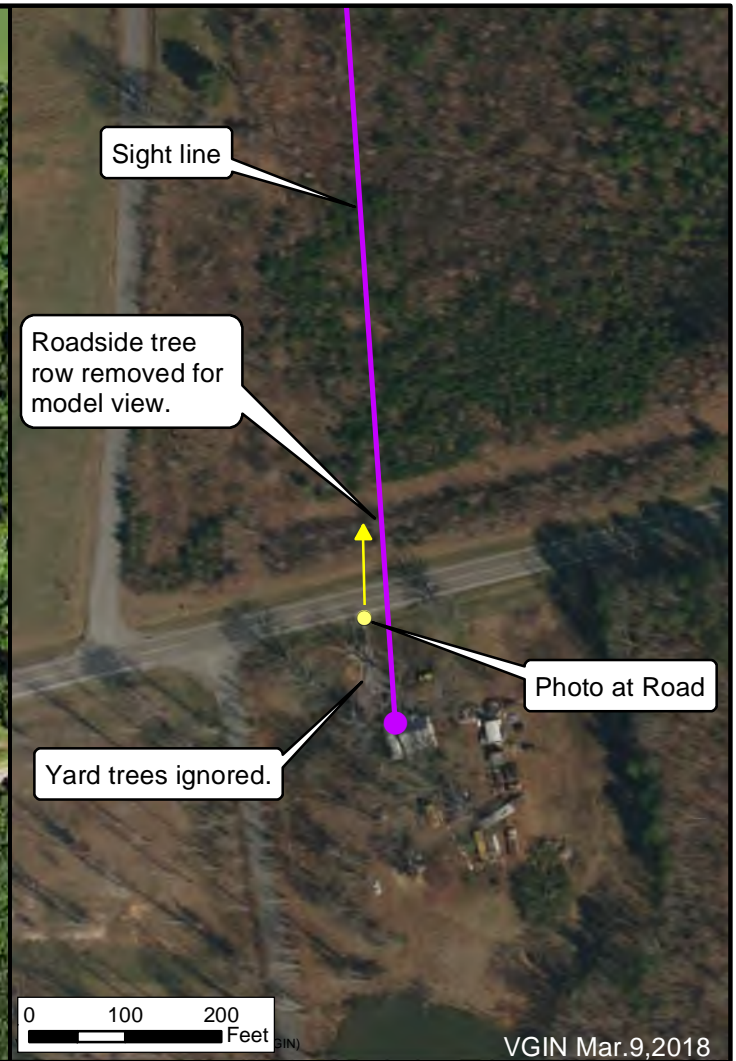
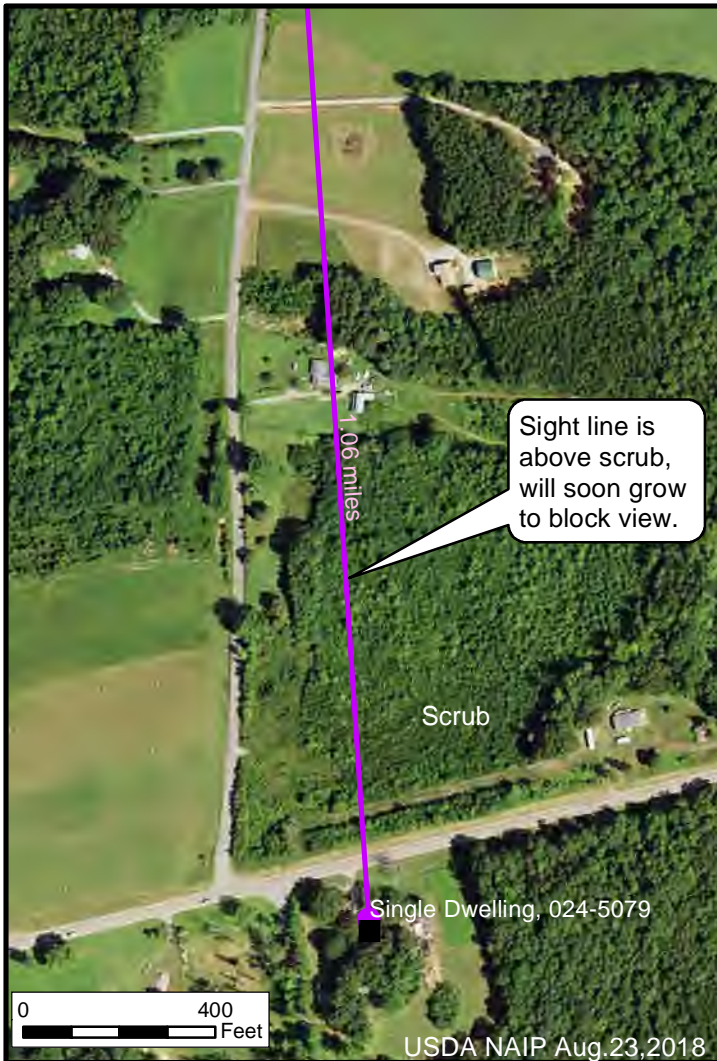
Richmond, VA  
Charlottesville, VA  
Hampton Roads, VA

Raleigh, NC  
Fayetteville, NC  
Northern Virginia  
Virginia Beach, VA

DESIGNED: LPK  
DRAWN: SMF  
CHECKED: LPK  
DATE: 09-28-20

**FIGURE**  
**2**





**Site-3, Single Dwelling**  
**DHR ID# 024-5079**  
**Visibility Model**

Green Ridge  
 Recycling and Disposal Facility  
 Cumberland Co., VA

SCALE:

PROJECT: 18020117-140102



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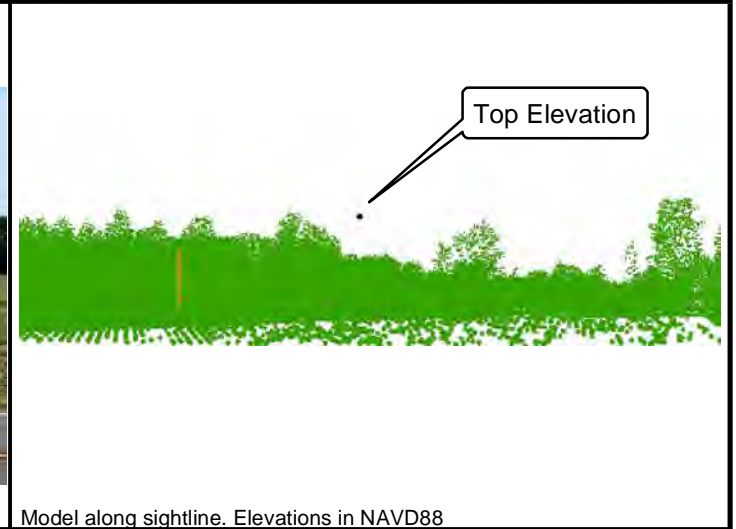
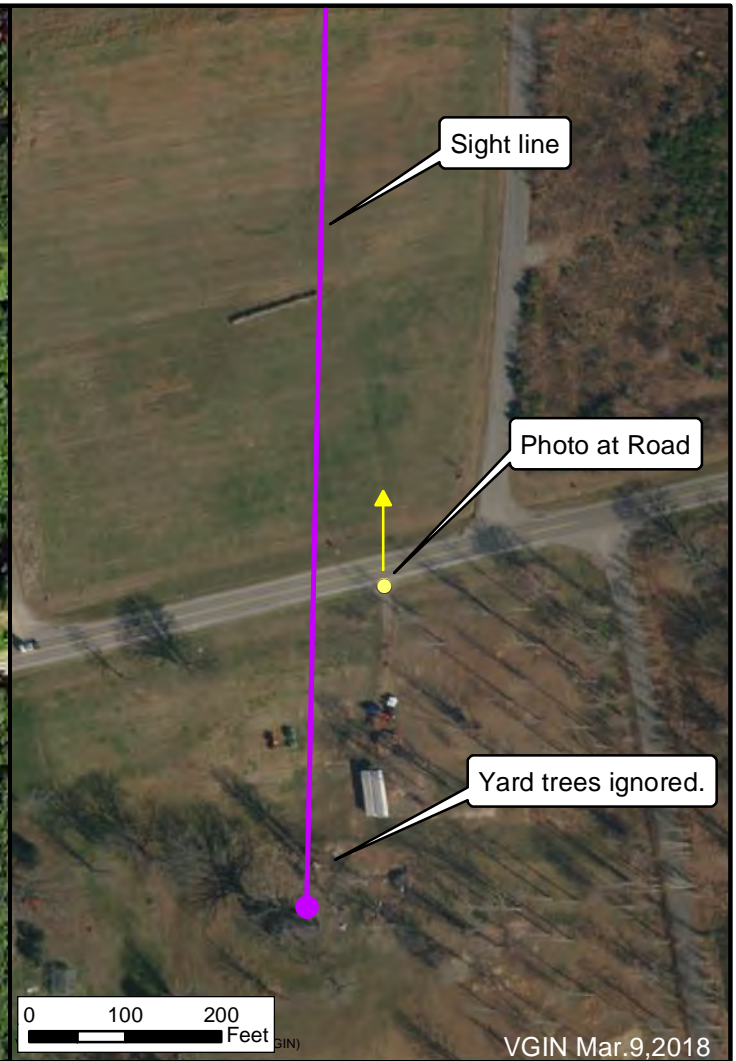
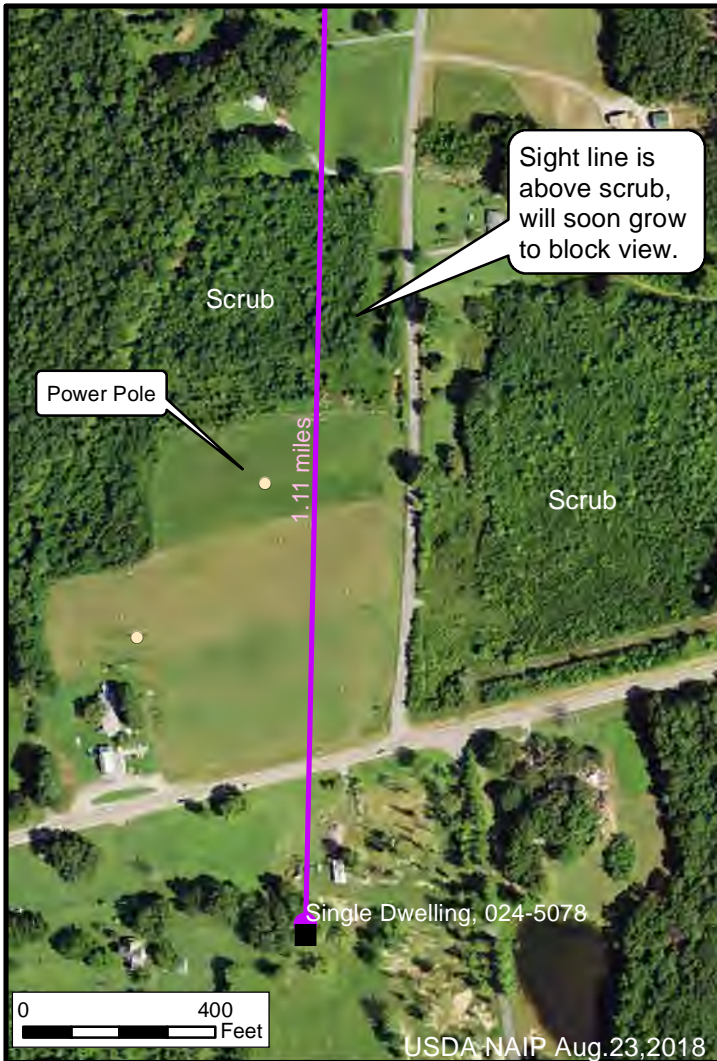
Richmond, VA  
 Charlottesville, VA  
 Hampton Roads, VA

Raleigh, NC  
 Fayetteville, NC  
 Northern Virginia  
 Virginia Beach, VA

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 DRAWN: SMF  
 CHECKED: LPK  
 DATE: 09-28-20

**FIGURE**  
**3**





**Site-4, Single Dwelling**  
**DHR ID# 024-5078**  
**Visibility Model**

Green Ridge  
 Recycling and Disposal Facility  
 Cumberland Co., VA

SCALE:

PROJECT: 18020117-140102



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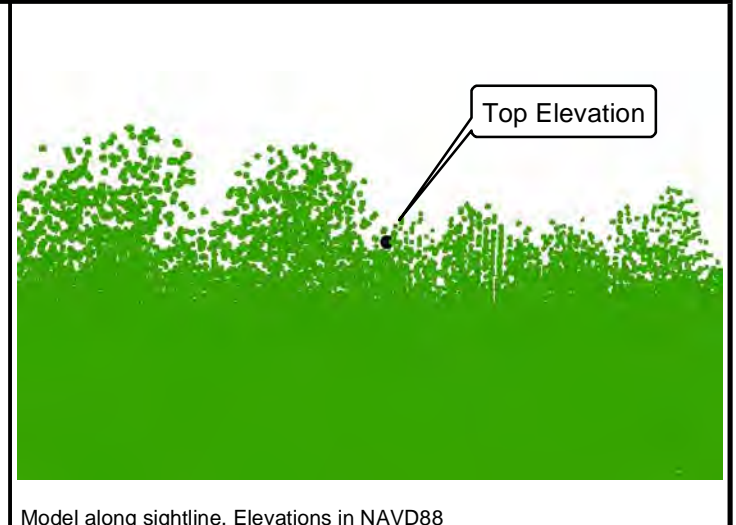
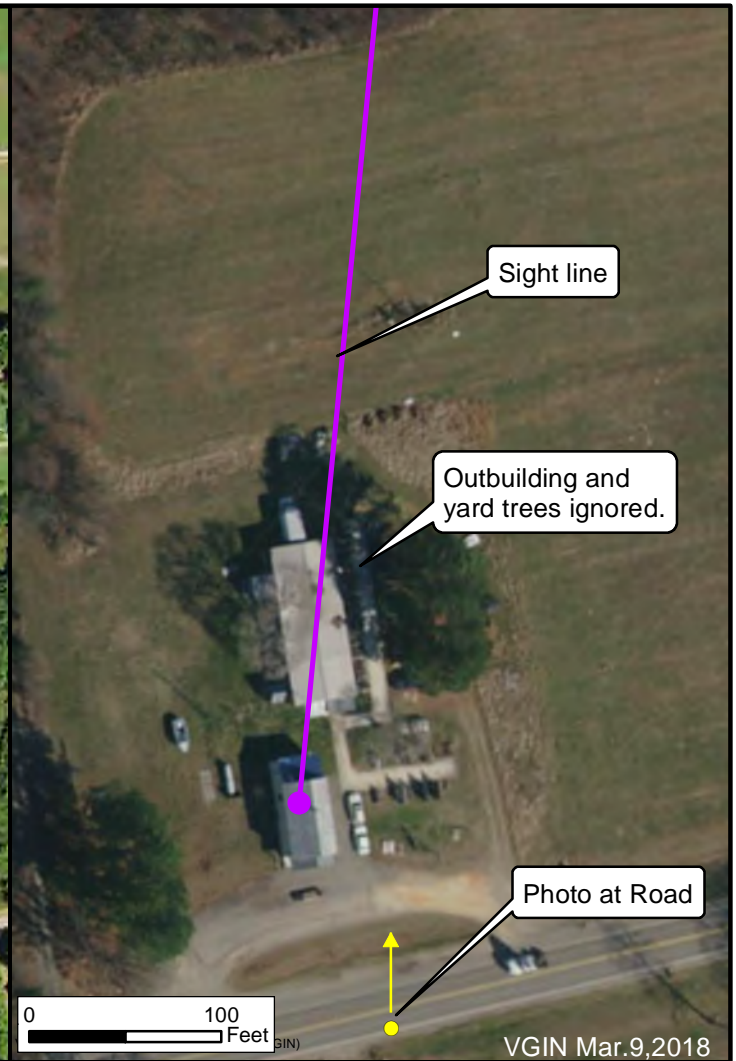
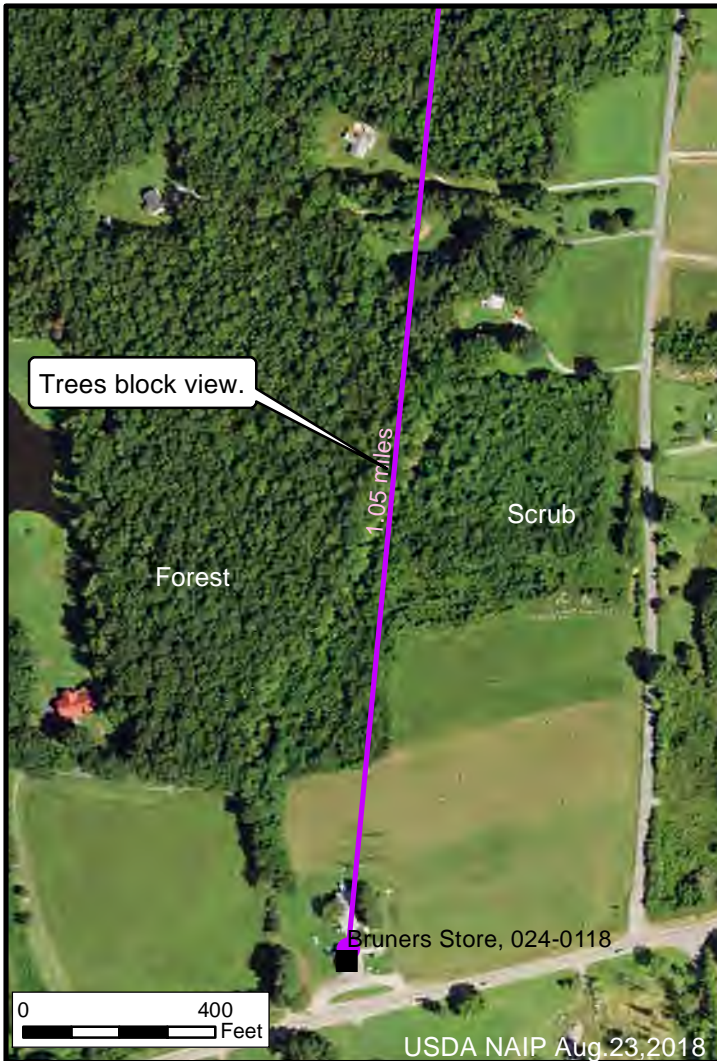
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**FIGURE**  
**4**





**Site-5, Bruners Store**  
**DHR ID# 024-0118**  
**Visibility Model**

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 Cumberland Co., VA

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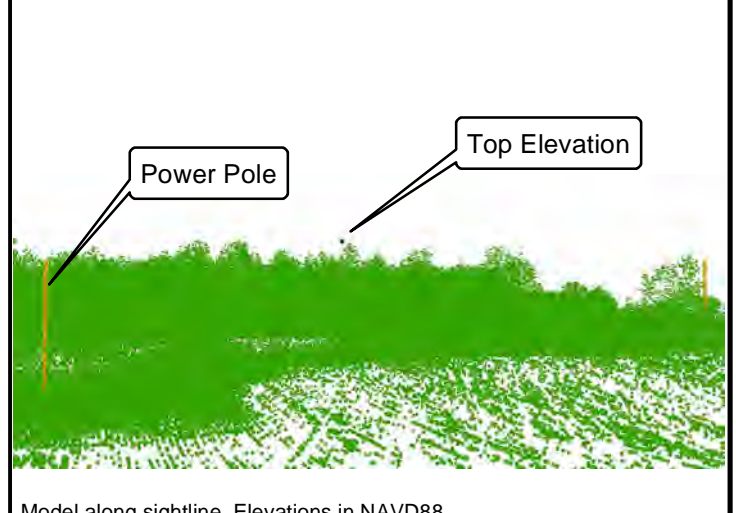
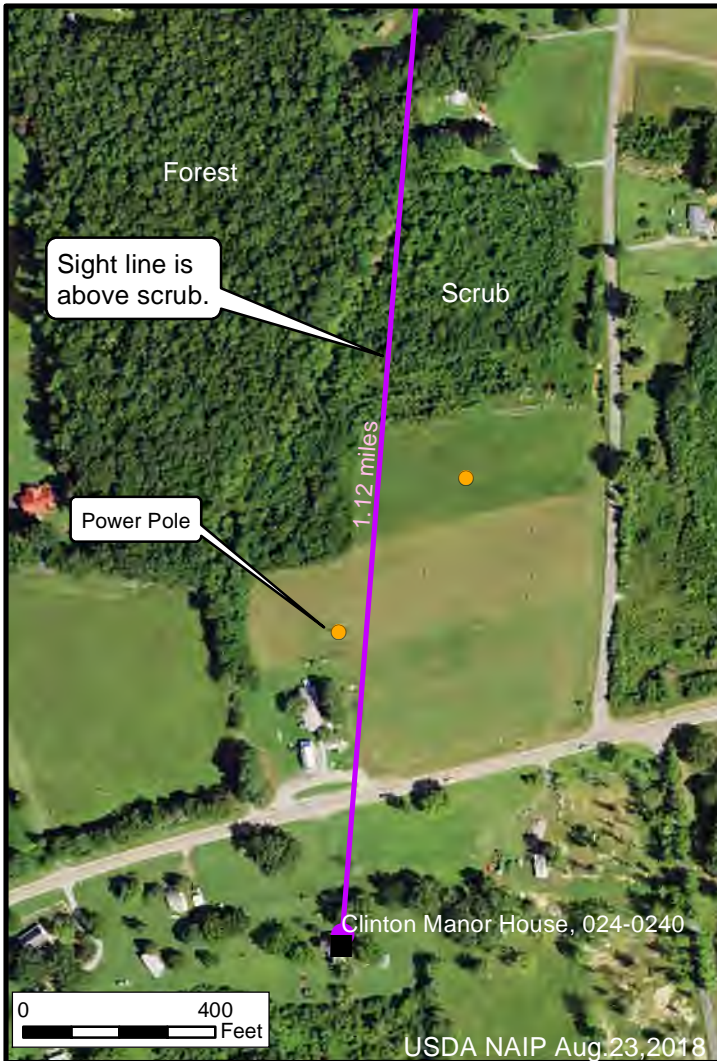
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**FIGURE**  
**5**





**Site-6, Clinton Manor House**  
**DHR ID# 024-0240**  
**Visibility Model**

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 Cumberland Co., VA

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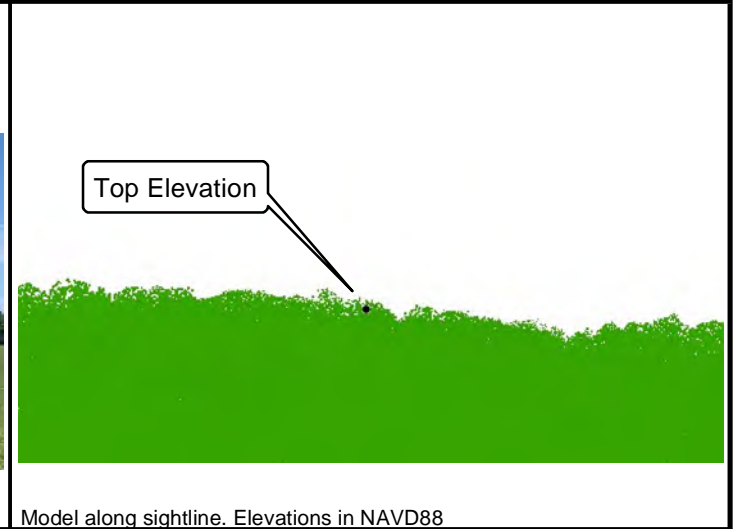
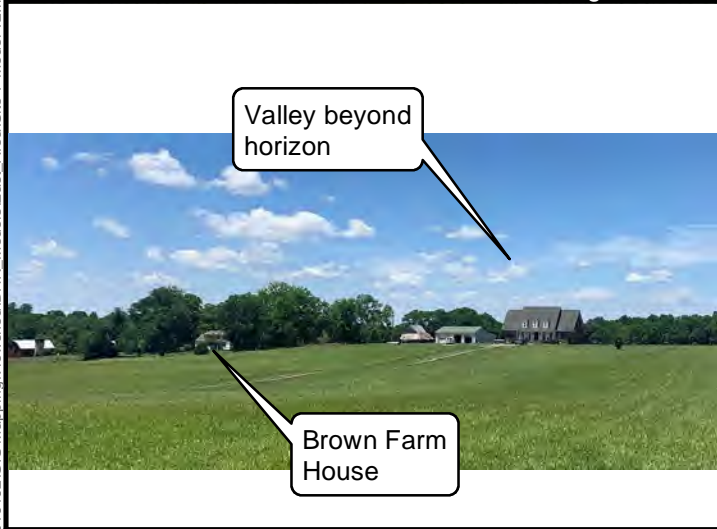
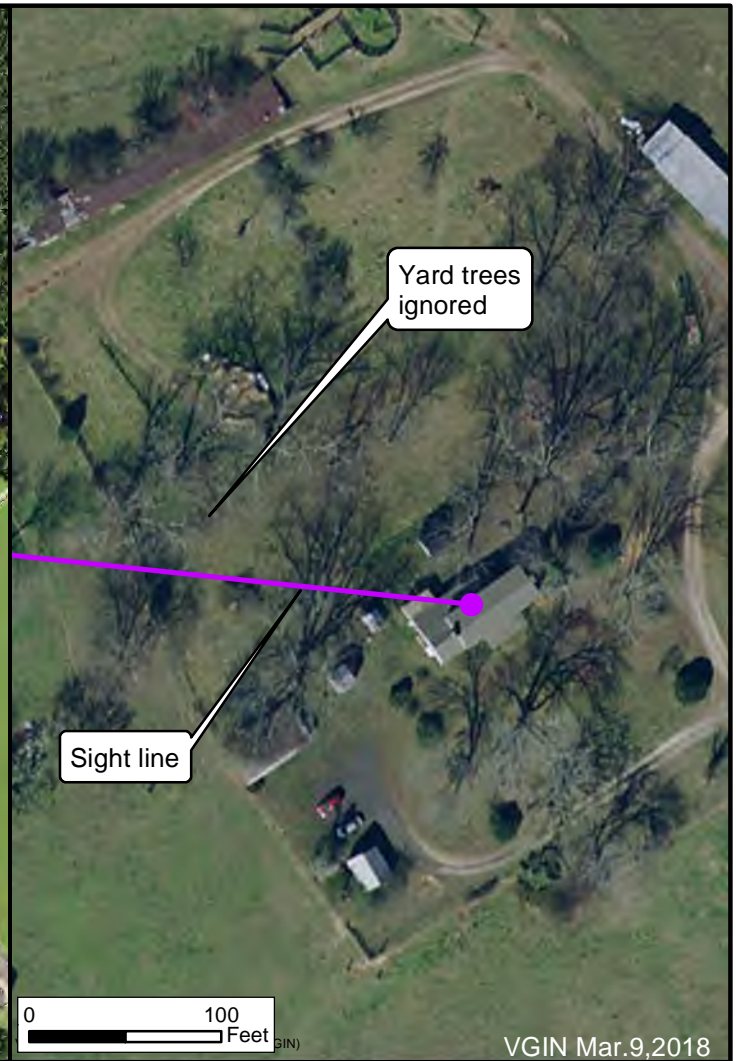
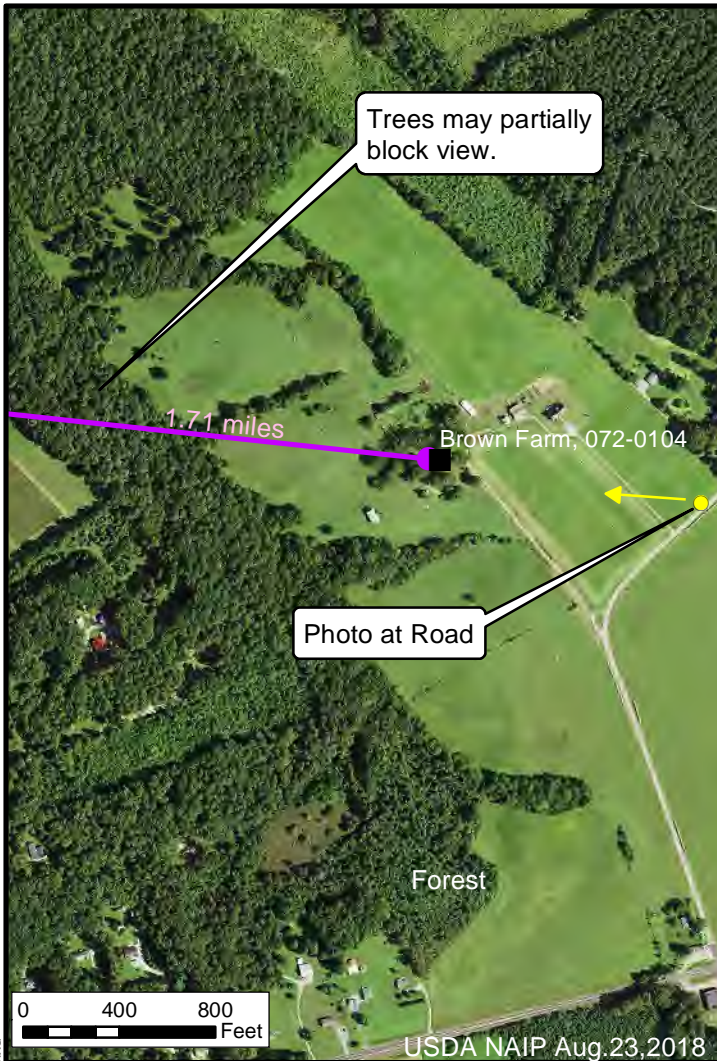
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**FIGURE**  
**6**





Model along sightline. Elevations in NAVD88

**Site-7, Brown Farm**  
**DHR ID# 072-0104**  
**Visibility Model**

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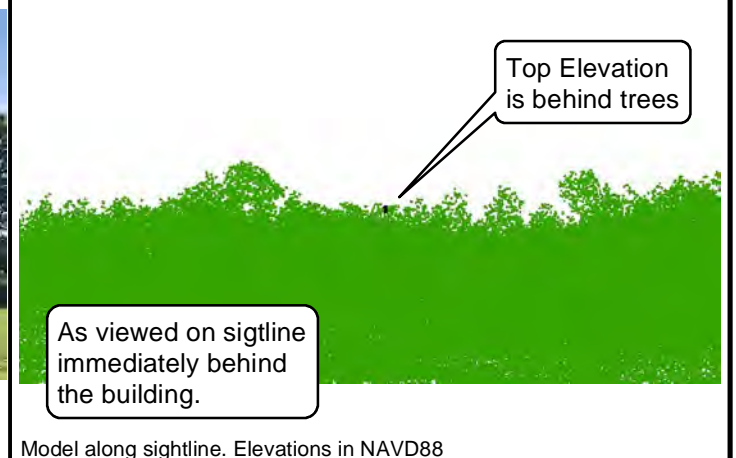
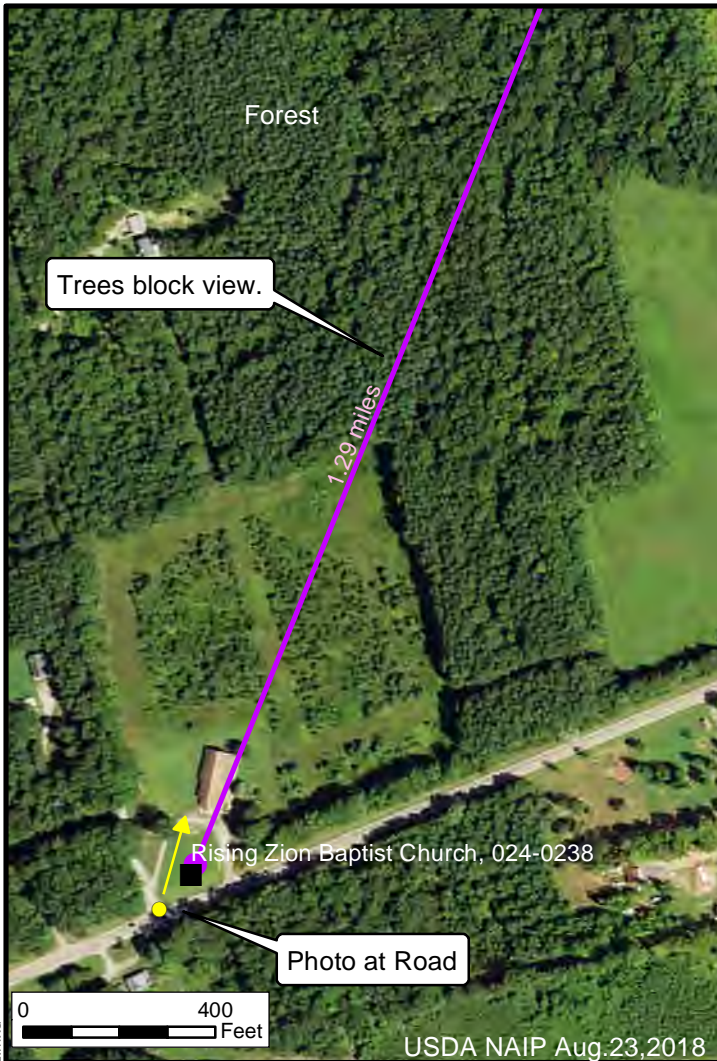
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**FIGURE**  
**7**





**Site-8, Rising Zion Baptist Church**  
**DHR ID# 024-0238**  
**Visibility Model**

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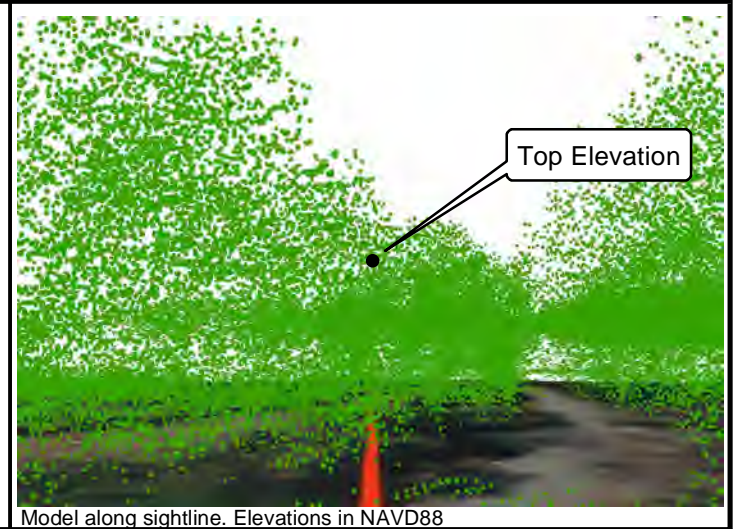
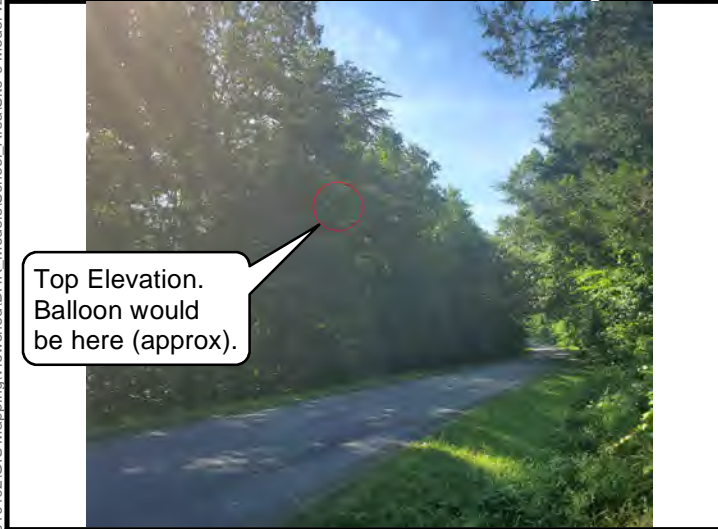
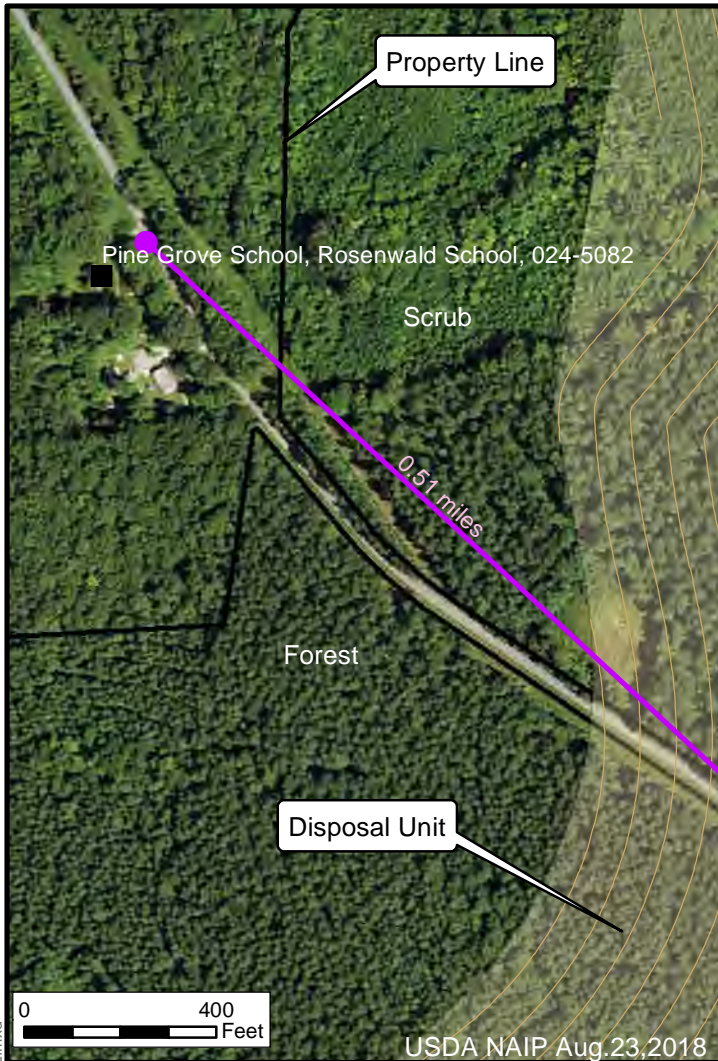
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**FIGURE**  
**8**





**Site-9, Pine Grove School**  
**DHR ID# 024-5082**  
**Visibility Model**

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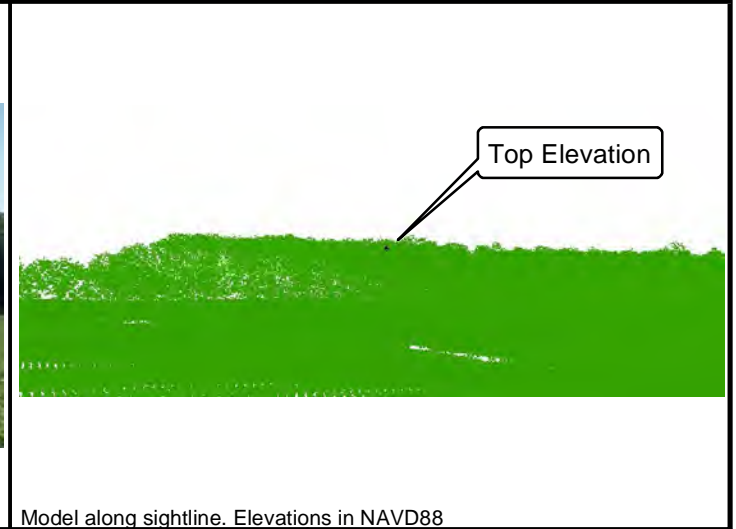
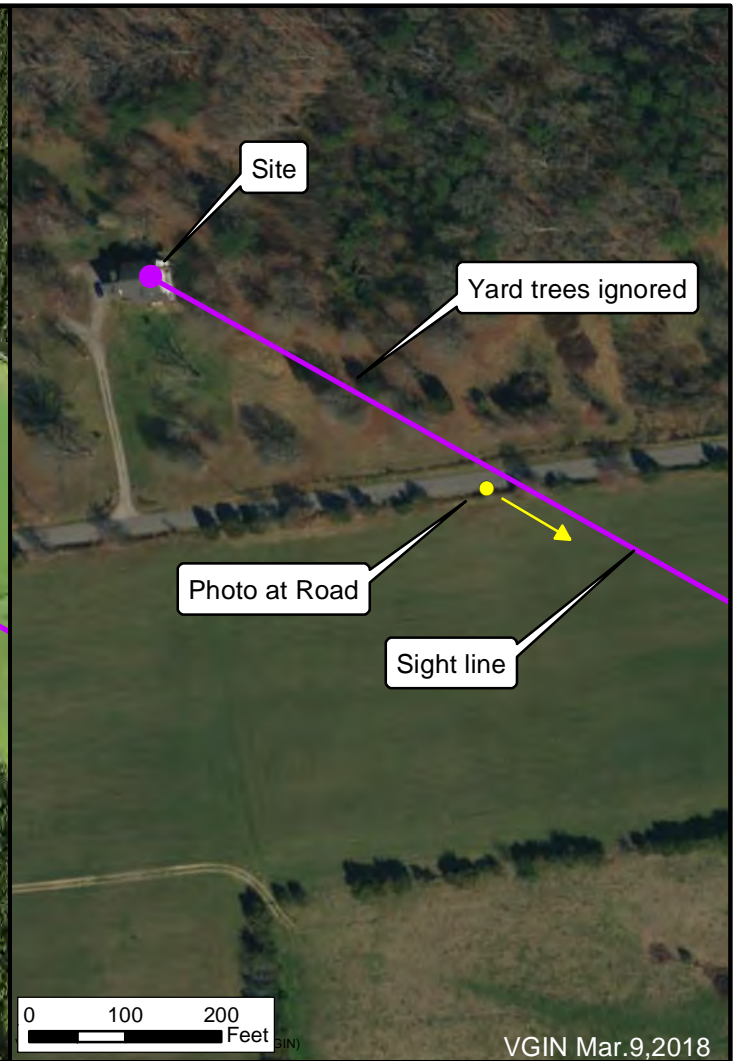
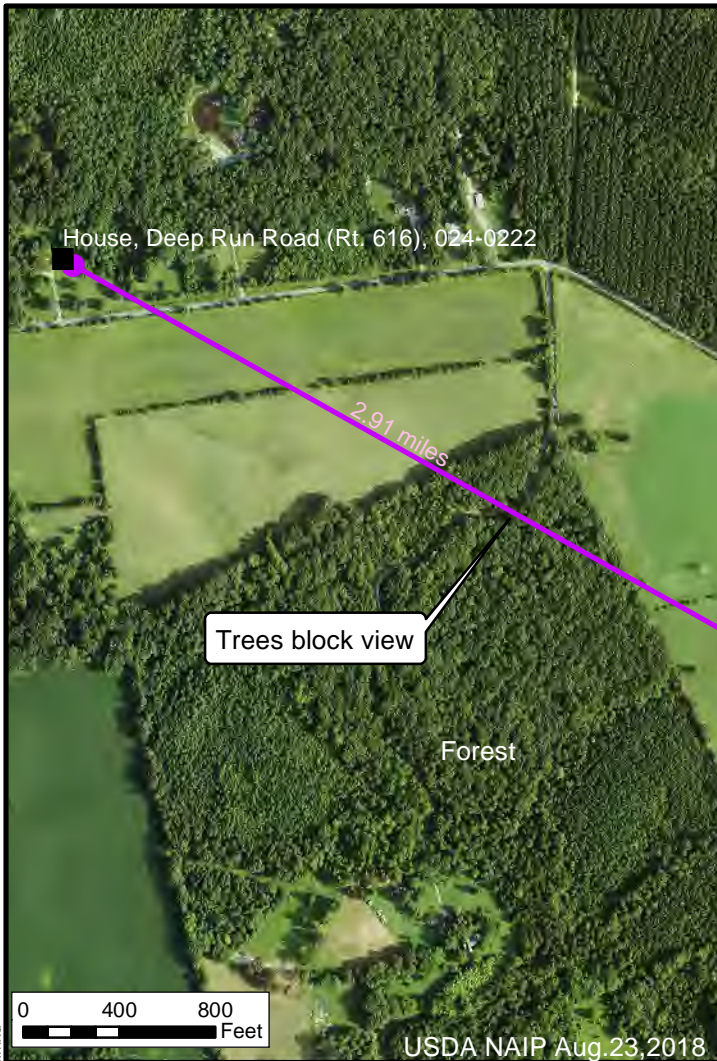
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**FIGURE**  
**9**

Path: P:\2018\18020100\18020117\18020117-010102\GIS Mapping\Views\shed\DHR\_Models\School\_Area\Site-9 Model v2.mxd





**Site-10, House, Deep Run Road**  
**DHR ID# 024-0222**  
**Visibility Model**

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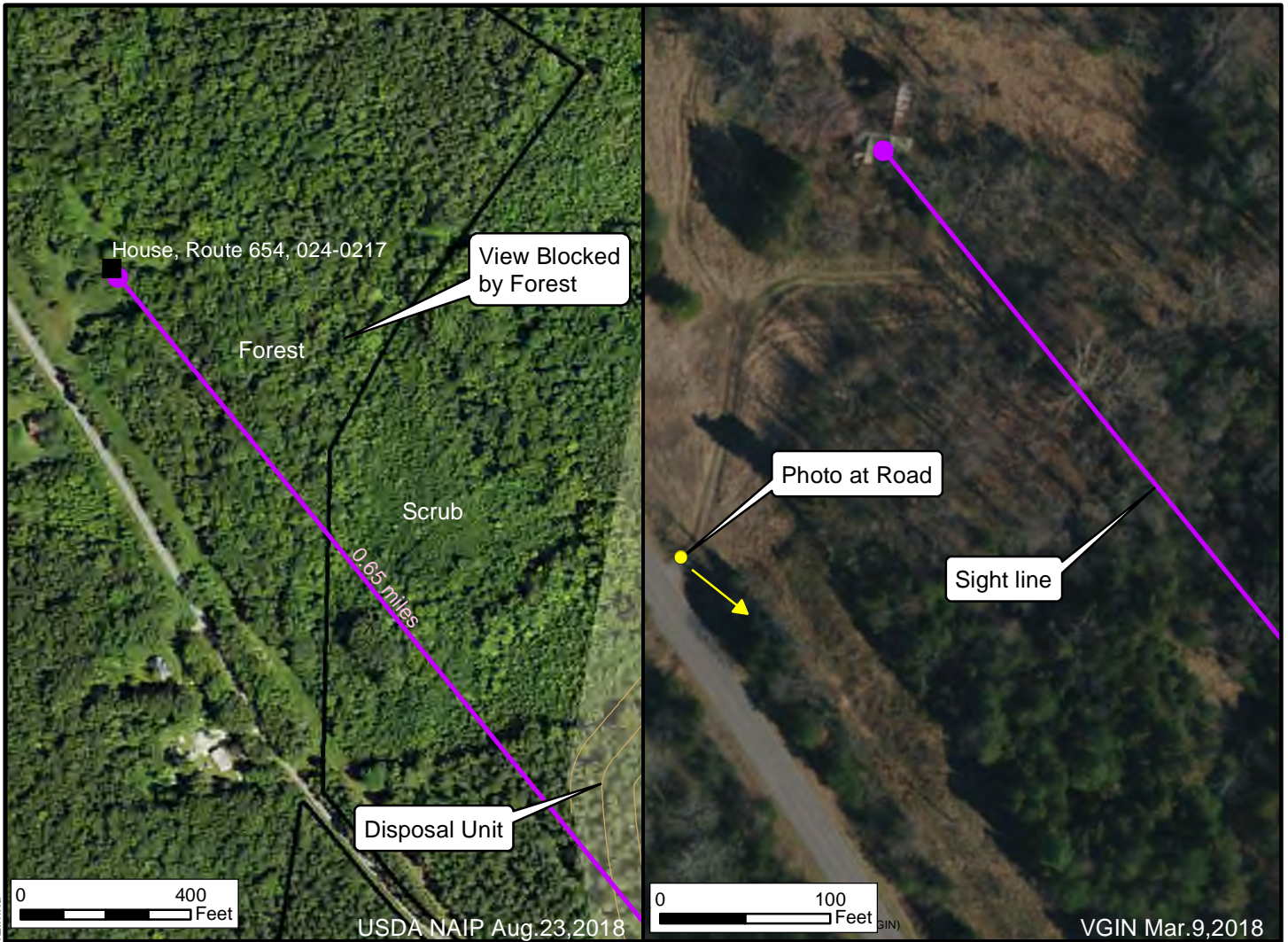
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**FIGURE**  
**10**





Model would be a 'green wall'.

**Site-11, House Rt 654**

**DHR ID# 024-0217**

**Visibility Model**

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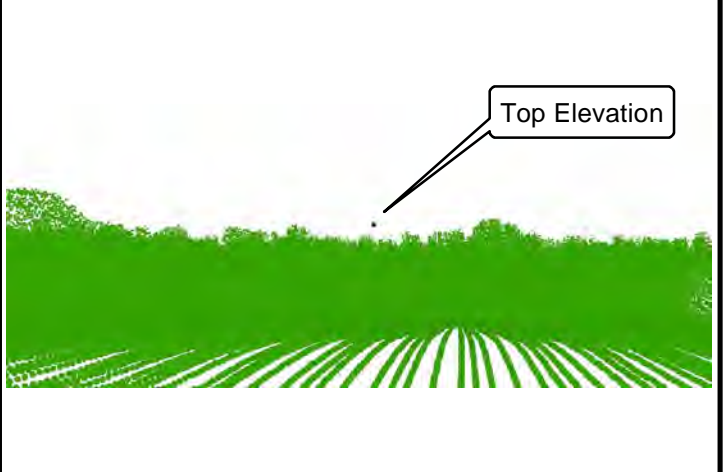
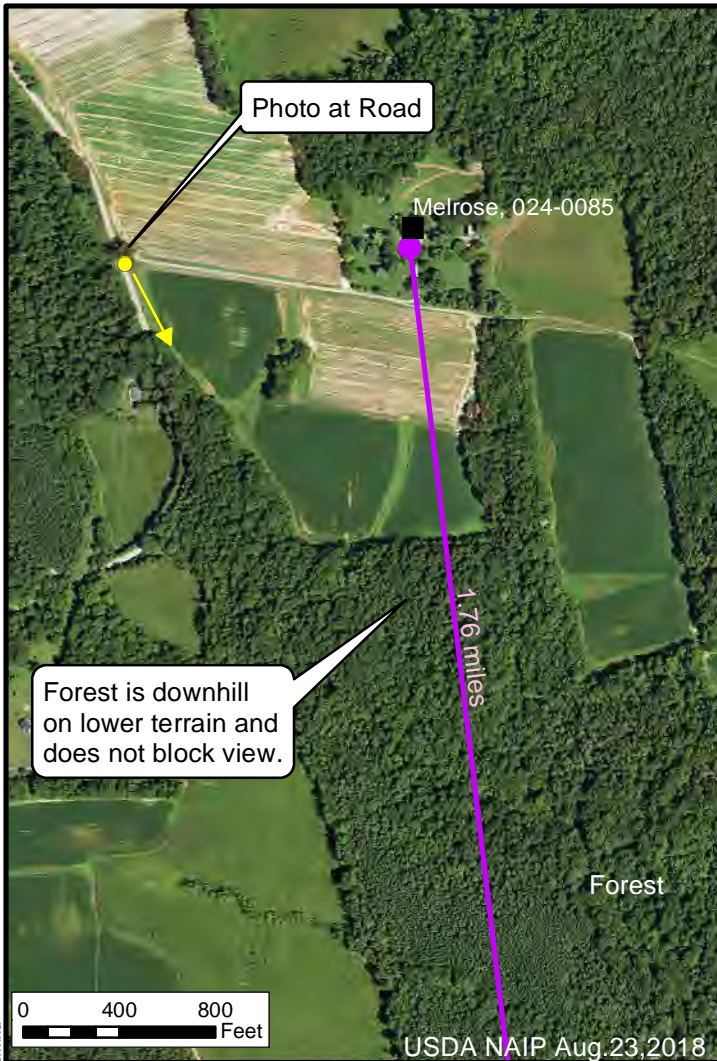
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**FIGURE**

**11**





Model along sightline. Elevations in NAVD88

**Site-12, Melrose**  
**DHR ID# 024-0085**  
**Visibility Model**

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 Cumberland Co., VA

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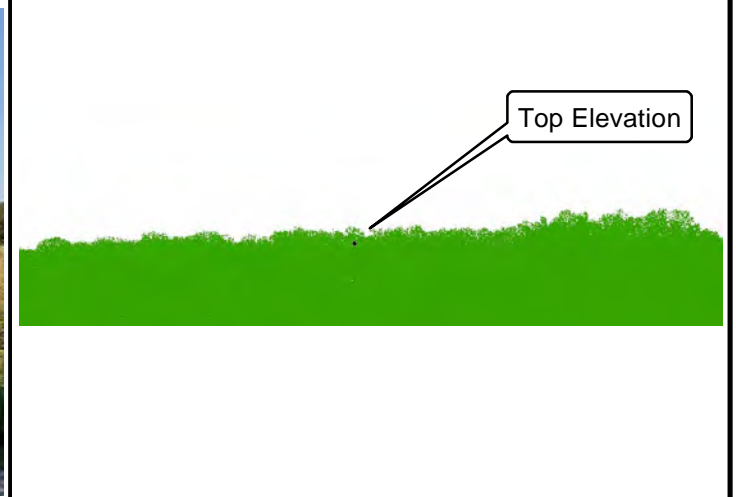
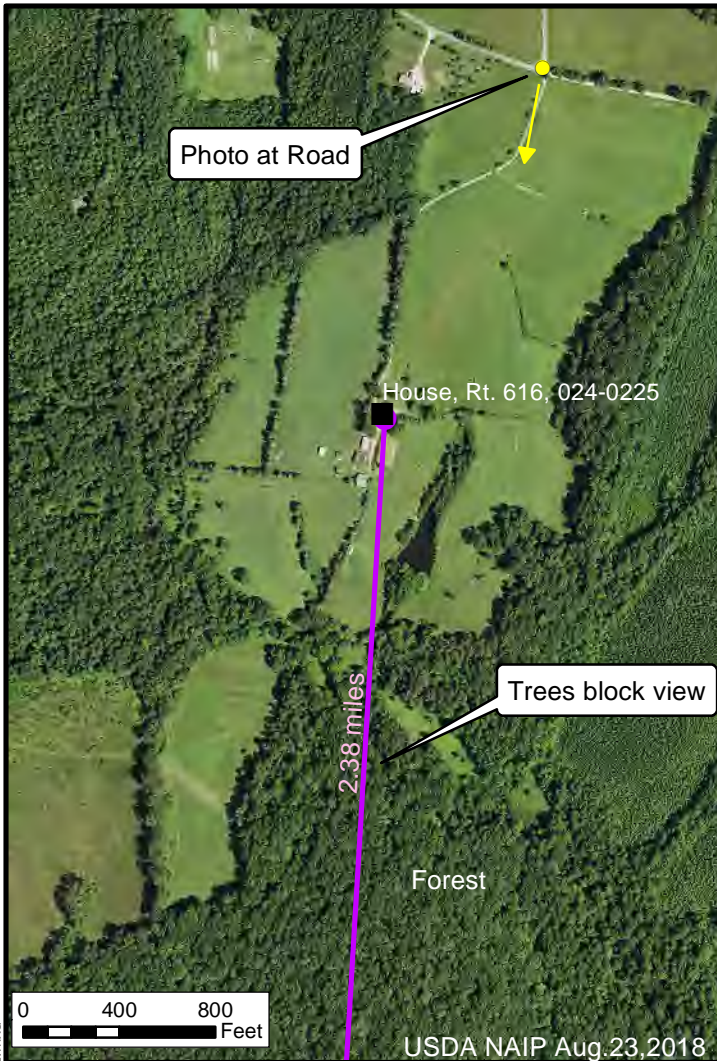
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**FIGURE**  
**12**





Model along sightline. Elevations in NAVD88

## Site-13, House, Rt 616 Visibility Model

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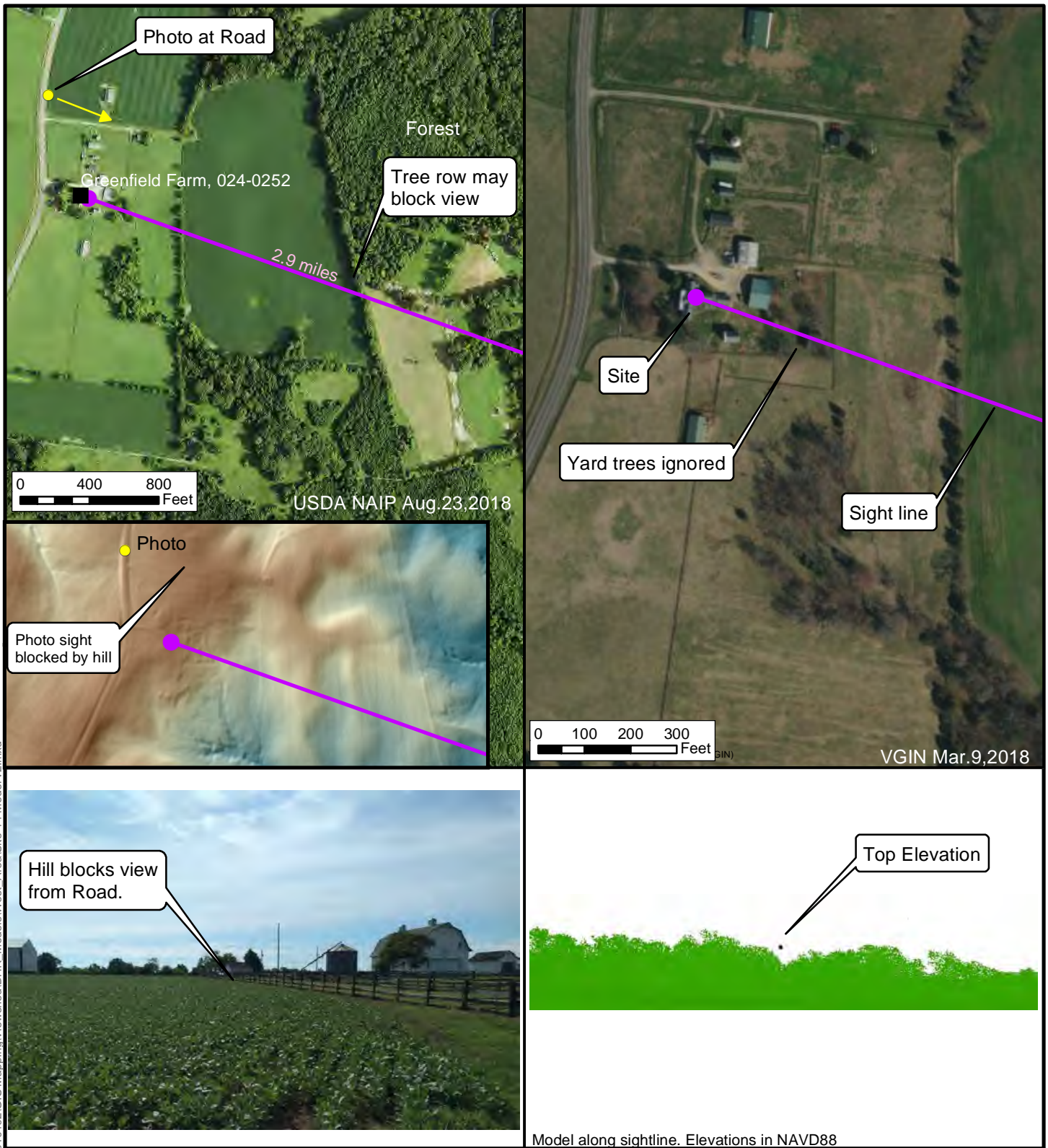
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## FIGURE 13





**Site-14, Greenfield Farm**  
**DHR ID# 024-0252**  
**Visibility Model**

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 Cumberland Co., VA

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**FIGURE**  
**14**

## **APPENDIX 4: ARTIFACT INVENTORY**





## **44CM0136**

### **STP 114, Fill 1**

#### ***Kitchen***

- 1 white milk glass canning jar lid liner fragment

### **STP 115, Fill 1**

#### ***Architecture***

- 4 unidentified brick fragments, discarded in lab (61g)

### **STP 118, Fill 1**

#### ***Architecture***

- 2 cut nail(s), machine headed (1825-present)
- 1 cut nail(s), machine headed (1825-present) fragment
- 4 lime soda (post 1864) windowpane glass fragments
- 2 lime soda (post 1864) windowpane glass fragments
- 1 unidentified brick fragment, discarded in lab (18g)

#### ***Kitchen***

- 1 clear glassware fragment, unidentified form
- 3 pale blue aqua bottle/jar fragments
- 2 unidentified stoneware body sherds, flatware, undecorated

### **STP 119, Fill 1**

#### ***Architecture***

- 1 lime soda (post 1864) windowpane glass fragment
- 5 unidentified brick fragments, discarded in lab (52g)
- 1 unidentified nail(s) fragments

#### ***Clothing***

- 1 copper alloy button(s), flat, round , 18mm in diameter, missing shank, embossed lettering on back  
LONDON

### **STP 122, Fill 1**

#### ***Architecture***

- 1 lime soda (post 1864) windowpane glass fragment
- 1 lime soda (post 1864) windowpane glass fragment
- 3 unidentified nail(s) fragments

#### ***Kitchen***

- 1 olive amber bottle/jar fragment
- 1 olive green bottle/jar fragment

### **STP 123, Fill 1**

#### ***Activities***

- 1 chain, link, possible spring snap link

#### ***Architecture***

- 1 cut nail(s) (1790-present) fragment
- 1 lime soda (post 1864) windowpane glass fragment
- 7 lime soda (post 1864) windowpane glass fragments
- 5 lime soda (post 1864) windowpane glass fragments, burned

***Kitchen***

- 2 clear bottle/jar fragments
- 1 clear bottle/jar fragment, thin

***Unidentified***

- 2 unidentified ferrous metal fragments, thin, corroded
- 1 unidentified glass fragment, clear

**STP 124, Ap*****Architecture***

- 1 lime soda (post 1864) windowpane glass fragment
- 1 unidentified nail(s) fragment
- 3 wire nail(s) (1890s-present)
- 1 wire nail(s) (1890s-present), roofing nail

***Kitchen***

- 1 clear bottle/jar fragment, ABM (post 1907)
- 1 unidentified coarse earthenware sherd, unidentified form, brown interior and exterior glaze

**STP 125, Fill 1*****Architecture***

- 1 wire nail(s) (1890s-present) fragment

**STP 128, Apb*****Architecture***

- 1 lime soda (post 1864) windowpane glass fragment

**STP 132, Apb*****Kitchen***

- 1 cobalt blue bottle/jar fragment

**STP 133, Fill 1*****Architecture***

- 4 unidentified nail(s) fragments
- 3 wire nail(s) (1890s-present)

***Kitchen***

- 2 clear bottle/jar fragments
- 1 clear, green bottle/jar fragment

***Unidentified***

- 4 unidentified ferrous metal fragments

**STP 134, Fill 1*****Architecture***

- 1 lime soda (post 1864) windowpane glass fragment

***Kitchen***

- 1 unidentified refined earthenware sherd, unidentified form, spalled

**STP 137, Fill 1*****Kitchen***

- 1 clear bottle/jar fragment

**STP 145, Ap*****Kitchen***

- 1 unidentified refined earthenware sherd, unidentified form, undecorated



### **STP 161, Fill 1**

#### ***Architecture***

- 3 unidentified brick fragments, discarded in lab (95g)

### **STP 162, Ap**

#### ***Architecture***

- 1 wrought nail(s)

#### ***Kitchen***

- 1 unidentified refined earthenware sherd, flatware, blue edge decoration

### **STP 163, Fill 1**

#### ***Architecture***

- 1 lime soda (post 1864) windowpane glass fragment

### **STP 165, Fill 1**

#### ***Kitchen***

- 2 pearlware (1775-1830) base sherds, flatware, embossed annular pattern

### **STP 133N, Fill 1**

#### ***Architecture***

- 1 lime soda (post 1864) windowpane glass fragment
- 1 lime soda (post 1864) windowpane glass fragment
- 3 lime soda (post 1864) windowpane glass fragments
- 2 wire nail(s) (1890s-present)
- 4 wire nail(s) (1890s-present) fragments

#### ***Kitchen***

- 9 Ball Blue (1909-1939) canning jar fragments
- 3 clear bottle/jar fragments

#### ***Organic***

- 2 bone fragments

#### ***Unidentified***

- 3 unidentified ferrous metal fragments

### **STP 133W, Fill 1**

#### ***Architecture***

- 1 wire nail(s) (1890s-present)
- 1 wire nail(s) (1890s-present) fragment

### **STP 137W, Fill 1**

#### ***Organic***

- 5 bone fragments

### **44CM0137**

### **STP 22, Ap**

#### ***Kitchen***

- 2 clear bottle/jar fragments

### **STP 48, Ap**

#### ***Kitchen***

- 1 clear bottle/jar fragment





## **STP 52, Ap**

### ***Kitchen***

- 1 clear bottle/jar base fragment, square/rectangular
- 1 clear bottle/jar body fragment
- 1 clear bottle/jar fragment
- 1 clear jar whole/complete, ABM (post 1907), embossed lettering and numbering on base: "I58"; "S"; "T" in a keystone maker's mark (Knox Bottle Co. of Mississippi. Palestine, Texas plant) (1940-1952)
- 1 porcelain body fragment, unidentified form, undecorated

### ***Organic***

- 2 coal fragments

## **STP 53, Ap**

### ***Kitchen***

- 1 blue-green glassware fragment, unidentified form, pressed

## **STP 60, Ap**

### ***Kitchen***

- 2 clear bottle/jar body fragments

## **STP 64, Ap**

### ***Kitchen***

- 1 Ball Blue (1909-1939) canning jar body fragment
- 1 Ball Blue (1909-1939) canning jar body fragment, E" above "S O"

## **STP 89, Ap**

### ***Architecture***

- 1 lime soda (post 1864) windowpane glass fragment

### ***Kitchen***

- 1 clear bottle/jar body fragment

## **STP 91, Ap**

### ***Architecture***

- 1 lime soda (post 1864) windowpane glass fragment

### ***Kitchen***

- 1 clear bottle/jar body fragment
- 1 clear bottle/jar body fragment

## **STP 48E, Ap**

### ***Kitchen***

- 1 clear bottle/jar fragment

## **STP 48W, Ap**

### ***Kitchen***

- 1 amber bottle/jar body fragment, stippled pattern and embossed lettering "...TE..."
- 1 clear bottle/jar body fragment
- 1 white milk glass canning jar lid liner fragment

## **STP 60E, Ap**

### ***Kitchen***

- 1 clear bottle/jar body fragment



## **STP 60N, Ap**

### ***Kitchen***

- 1 clear bottle/jar body fragment
- 1 unidentified refined earthenware rim sherd, holloware vessel, scalloped, impressed edge decoration
- 1 whiteware (post 1820) base sherd, flatware, undecorated, painted makers mark

## **STP 60W, Ap**

### ***Kitchen***

- 1 white milk glass canning jar lid liner fragment

## **STP 64E, Ap**

### ***Architecture***

- 1 unidentified nail(s)

### ***Kitchen***

- 1 clear bottle/jar body fragment

## **STP 64S, Ap**

### ***Architecture***

- 1 unidentified nail(s) fragment

### ***Kitchen***

- 1 clear bottle/jar base fragment, ABM (post 1907), embossed "4" in circle
- 1 whiteware (post 1820) body sherd, unidentified form, undecorated, spalled

### ***Unidentified***

- 2 unidentified ferrous metal fragments

## **STP 91E, Ap**

### ***Kitchen***

- 1 whiteware (post 1820) rim sherd, unidentified form, undecorated

## **44CM0138**

## **MD 1, Fill 1**

### ***Architecture***

- 1 wire nail(s) (1890s-present)

## **MD 2, Fill 1**

### ***Architecture***

- 1 wire nail(s) (1890s-present) fragment

## **MD 3, Fill 1**

### ***Activities***

- 1 eye bolt

## **MD 4, Fill 1**

### ***Unidentified***

- 1 unidentified ferrous metal, angled rim, possible kettle fragment

## **MD 5, Ap**

### ***Architecture***

- 1 wire nail(s) (1890s-present)

## **MD 6, Ap**

### ***Kitchen***

- 1 ironstone (post 1840) base sherd, flatware, undecorated



***Unidentified***

- 1 unidentified ferrous metal fragment, threaded coupling

**MD 7, Ap**

***Architecture***

- 1 wire nail(s) (1890s-present)

***Organic***

- 1 bone fragment

**MD 8, Ap**

***Kitchen***

- 1 metal pot(s), blue and white enamelware lid fragment, hole in center

**MD 9, Ap**

***Architecture***

- 1 strap hinge fragment

**MD 10, Fill 1**

***Personal Items***

- 1 boot spur, with heel band, neck, and rowel

**MD 11, Fill 1**

***Architecture***

- 1 wire nail(s) (1890s-present)

**MD 12, Fill 1**

***Architecture***

- 4 cut nail(s) (1790-present), T headed
- 2 cut nail(s), machine headed (1825-present)
- 6 wire nail(s) (1890s-present)
- 1 wire nail(s) (1890s-present), roofing

***Personal Items***

- 1 shoe shoe sole, fragment

***Unidentified***

- 5 unidentified glass, burned, clear

**MD 13, Fill 1**

***Architecture***

- 1 lime soda (post 1864) windowpane glass fragment
- 6 wire nail(s) (1890s-present)
- 2 wire nail(s) (1890s-present) fragments

***Unidentified***

- 1 unidentified ferrous metal fragment
- 1 unidentified ferrous metal fragment, wire
- 1 unidentified glass fragment, burned, fused

**MD 14, Fill 1**

***Architecture***

- 1 cut nail(s) (1790-present)
- 12 wire nail(s) (1890s-present)
- 1 wire nail(s) (1890s-present) fragment

***Clothing***

- 1 safety pin fragment





***Kitchen***

- 1 clear bottle/jar body fragment

**MD 15, Fill 1*****Architecture***

- 2 lime soda (post 1864) windowpane glass fragments
- 1 staple
- 5 wire nail(s) (1890s-present)
- 1 wire nail(s) (1890s-present) fragment

***Unidentified***

- 1 unidentified glass, burned

**MD 16, Fill 1*****Architecture***

- 5 wire nail(s) (1890s-present)
- 1 wire nail(s) (1890s-present) fragment
- 1 wire nail(s) (1890s-present), roofing

***Organic***

- 1 bone fragment

**MD 17, Fill 1*****Architecture***

- 1 staple fragment

**MD 18, Fill 1*****Activities***

- 4 wire fencing fragment, barbed

***Kitchen***

- 1 clear bottle/jar body fragment, ABM (post 1907)

**MD 19, Fill 1*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 20, Fill 1*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 21, Fill 1*****Activities***

- 3 wire fencing fragments, barbed

**MD 22, Fill 1*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 23, Fill 1*****Architecture***

- 1 lime soda (post 1864) windowpane glass fragment
- 3 wire nail(s) (1890s-present) fragments



***Unidentified***

- 1 unidentified glass fragment, burned, red
- 8 unidentified glass fragments, burned, clear
- 2 unidentified glass fragments, burned, orange
- 2 unidentified other fragments, with glass and charcoal

**MD 24, Fill 1*****Architecture***

- 1 wire nail(s) (1890s-present) fragment

***Furniture***

- 1 steamer trunk corner guard

***Kitchen***

- 1 clear bottle/jar base fragment, ABM (post 1907)

***Unidentified***

- 1 unidentified ferrous metal fragment
- 4 unidentified glass fragments, burned

**MD 25, Fill 1*****Architecture***

- 3 wire nail(s) (1890s-present)
- 2 wire nail(s) (1890s-present) fragments

***Kitchen***

- 1 amber bottle/jar base fragment, ABM (post 1907), burned
- 1 clear bottle/jar body fragment
- 2 clear bottle/jar body fragments

**MD 26, Fill 1*****Architecture***

- 1 wire nail(s) (1890s-present)
- 1 wire nail(s) (1890s-present) fragment

***Kitchen***

- 1 clear bottle/jar base fragment, ABM (post 1907)
- 1 clear bottle/jar fragment, annular, embossed lines along rim, embossed "J"

***Unidentified***

- 1 unidentified glass fragment, burned, clear

**MD 27, Fill 1*****Architecture***

- 2 wire nail(s) (1890s-present)

***Furniture***

- 1 steamer trunk corner guard

***Unidentified***

- 2 unidentified ferrous metal fragments

**MD 28, Fill 1*****Architecture***

- 1 hinge, door or cabinet

**MD 29, Fill 1*****Architecture***

- 4 lime soda (post 1864) windowpane glass fragments



### **MD 30, Fill 1**

#### ***Architecture***

- 5 wire nail(s) (1890s-present)

#### ***Unidentified***

- 1 unidentified ferrous metal fragment, curved, raised rim
- 1 unidentified glass fragment, burned, clear

### **MD 31, Fill 1**

#### ***Kitchen***

- 1 Ball Blue (1909-1939) canning jar finish fragment, large mouth, external thread finish (post 1858), intact metal lid and milk glass lid liner; embossed lettering on lid, Presto

### **MD 32, Fill 1**

#### ***Architecture***

- 3 wire nail(s) (1890s-present)

### **MD 33, Fill 1**

#### ***Architecture***

- 1 wire nail(s) (1890s-present) fragment

### **MD 34, Fill 1**

#### ***Unidentified***

- 1 unidentified ferrous metal fragment

### **MD 35, Fill 1**

#### ***Architecture***

- 2 unidentified nail(s) fragments
- 3 wire nail(s) (1890s-present) fragments

### **MD 36, Fill 1**

#### ***Architecture***

- 2 wire nail(s) (1890s-present)
- 1 wire nail(s) (1890s-present) fragment

### **MD 37, Fill 1**

#### ***Architecture***

- 1 cut nail(s), machine headed (1825-present)

#### ***Kitchen***

- 1 whiteware (post 1820) body sherd, flatware, undecorated

### **MD 38, Fill 1**

#### ***Architecture***

- 1 other, other, aluminum 3-hole escutcheon
- 2 wire nail(s) (1890s-present)
- 2 wire nail(s) (1890s-present) fragments

#### ***Kitchen***

- 1 white milk glass (c.1870-c.1950) glassware fragment, holloware, pressed, flared rim, linear exterior pattern, undecorated interior
- 1 white milk glass (c.1870-c.1950) glassware fragment, unidentified form, pressed, embossed linear decoration on exterior, floral pattern on interior

### **MD 39, Fill 1**

#### ***Kitchen***

- 1 whiteware (post 1820) body sherd, holloware vessel, undecorated





***Unidentified***

- 2 unidentified ferrous metal fragments
- 1 unidentified non-ferrous metal fragment

**MD 40, Fill 1**

***Unidentified***

- 1 unidentified ferrous metal, square/rectangular plate fragment with grooved rim

**MD 41, Fill 1**

***Kitchen***

- 1 English hard paste porcelain (post 1820) sherd, flatware, green/gold annular exterior decoration
- 1 spoon bowl fragment, unidentified ferrous metal

**MD 42, Fill 1**

***Architecture***

- 1 locking bolts and brackets, with intact escutcheon

**SC 1, Ap**

***Architecture***

- 3 lime soda (post 1864) windowpane glass fragments

***Kitchen***

- 1 clear bottle/jar fragment, burned

***Unidentified***

- 4 unidentified glass fragments, burned

**44CM0139**

**STP 35, Fill 1**

***Architecture***

- 1 lime soda (post 1864) windowpane glass fragment
- 1 lime soda (post 1864) windowpane glass fragment
- 1 lime soda (post 1864) windowpane glass fragment

***Unidentified***

- 14 unidentified ferrous metal fragments

**STP 36, Fill 1**

***Architecture***

- 25 unidentified brick fragments, (observed)

**STP 40, Fill 1**

***Architecture***

- 47 unidentified brick fragments, (observed)

**STP 35N, Fill 1**

***Architecture***

- 39 unidentified brick fragments, (observed)

**STP 40N, Fill 1**

***Architecture***

- 1 lime soda (post 1864) windowpane glass fragment

***Unidentified***

- 1 unidentified non-ferrous metal, pull tab



## **44CM0140**

### **STP 364, Fill 1**

#### ***Architecture***

- 1 wire nail(s) (1890s-present) fragment

### **STP 395, Fill 1**

#### ***Architecture***

- 1 lime soda (post 1864) windowpane glass

#### ***Unidentified***

- 1 unidentified other, amber translucent plastic fragment

### **STP 397, Fill 1**

#### ***Kitchen***

- 1 olive amber bottle body fragment, contact mold (1810-1880)
- 1 pearlware (1775-1830) base sherd, flatware, undecorated

### **STP 364N, Fill 1**

#### ***Kitchen***

- 1 Ball Blue (1909-1939) canning jar body fragment

### **STP 364S, Fill 1**

#### ***Architecture***

- 4 lime soda (post 1864) windowpane glass fragments

## **44CM0141**

### **STP 262, Ap**

#### ***Architecture***

- 1 spikes
- 1 wire nail(s) (1890s-present)
- 1 wire nail(s) (1890s-present) fragment

#### ***Unidentified***

- 1 unidentified ferrous metal, thin strap, u-bolts and eye bolt with iron ring attached

### **STP 267, Ap**

#### ***Kitchen***

- 1 clear bottle/jar body fragment

### **STP 290, Ap**

#### ***Kitchen***

- 1 clear bottle whole/complete, ABM (post 1907), bead finish, embossed lettering/numbering on base "2.5 FL. OZ.", "S" within a circle maker's mark (1914-1930)

### **STP 293, Ap**

#### ***Kitchen***

- 1 clear bottle/jar base fragment, chilled iron mold (1880-1930)
- 2 clear bottle/jar body fragments

#### ***Unidentified***

- 11 unidentified ferrous metal fragments

### **STP 294, Ap**

#### ***Architecture***

- 1 wire nail(s) (1890s-present), bent
- 1 wire nail(s) (1890s-present) fragment

#### ***Unidentified***

- 1 unidentified non-ferrous metal fragment

### **STP 297, Ap**

#### ***Architecture***

- 1 wire nail(s) (1890s-present)

### **STP 309, Ap**

#### ***Architecture***

- 3 unidentified nail(s) fragments

### **STP 313, Ap**

#### ***Activities***

- 1 wagon/buggy parts, endgate/box rod

#### ***Architecture***

- 3 unidentified nail(s) fragments

#### ***Kitchen***

- 4 clear bottle/jar body fragments
- 2 clear jar finish fragments, large mouth, external thread finish (post 1858)

### **STP 267N, Ap**

#### ***Unidentified***

- 4 unidentified ferrous metal fragments

### **STP 293N, Ap**

#### ***Kitchen***

- 1 clear bottle/jar body fragment

### **STP 294E, Ap**

#### ***Architecture***

- 24 lime soda (post 1864) windowpane glass fragments

#### ***Kitchen***

- 3 clear bottle/jar body fragments
- 1 white milk glass canning jar lid liner fragment

### **STP 294S, Ap**

#### ***Kitchen***

- 1 unidentified refined earthenware base sherd, flatware, undecorated

### **STP 297E, Ap**

#### ***Architecture***

- 1 wire nail(s) (1890s-present), bent tip

#### ***Kitchen***

- 1 clear bottle/jar body fragment

#### ***Unidentified***

- 3 unidentified ferrous metal fragments, handle
- 1 unidentified non-ferrous metal, threaded cap with four prongs



## **44CM0144**

### **MD 1, Ap**

#### ***Activities***

- 1 chain link

### **MD 2, Ap**

#### ***Unidentified***

- 1 unidentified ferrous metal fragment, square, 6x5x1 cm .

### **MD 3, Ap**

#### ***Unidentified***

- 1 unidentified ferrous metal, hoop diameter: 9 cm, width: 5 cm, with raised element 2 cm wide and high along width of hoop

### **MD 4, Ap**

#### ***Architecture***

- 1 unidentified nail(s) fragment

### **MD 5, Ap**

#### ***Unidentified***

- 1 unidentified ferrous metal fragment, curved, 7.5x4.5x0.6 cm

### **MD 6, Ap**

#### ***Architecture***

- 1 strap hinge fragment

### **MD 7, Ap**

#### ***Activities***

- 1 plowshare

### **MD 8, Ap**

#### ***Activities***

- 1 horseshoe fragment

### **MD 9, Ap**

#### ***Unidentified***

- 1 unidentified ferrous metal fragment, plate, thickness: 0.05 cm

### **MD 10, Ap**

#### ***Activities***

- 1 cultivator shank, bent, 16.5x4.5 cm, single hole in center

### **MD 11, Ap**

#### ***Unidentified***

- 1 unidentified ferrous metal fragment, flat, with raised rim, 0.5 cm in thickness

### **MD 12, Ap**

#### ***Unidentified***

- 1 unidentified ferrous metal, bar, 15x3x.5 cm

### **MD 13, Ap**

#### ***Architecture***

- 1 strap hinge fragment

### **MD 14, Ap**

#### ***Architecture***

- 1 wire nail(s) (1890s-present) fragment



**MD 15, Ap*****Architecture***

- 1 strap hinge fragment, nut and bolt attached

**MD 16, Ap*****Activities***

- 1 horseshoe fragment

**MD 18, Ap*****Activities***

- 1 horseshoe

**MD 19, Ap*****Activities***

- 1 plowshare

**MD 20, Ap*****Activities***

- 1 hoe

**MD 21, Ap*****Architecture***

- 1 unidentified nail(s) fragment

***Kitchen***

- 1 amber bottle base fragment, ABM (post 1907), embossed lettering "...DE MARK R..."
- 1 olive amber bottle body fragment

***Unidentified***

- 1 unidentified ferrous metal fragment, length: 9 cm, diameter: 1.5 cm

**MD 22, Ap*****Architecture***

- 1 unidentified brick fragment, discarded in lab (122g)

***Kitchen***

- 1 clear bottle finish fragment, ABM (post 1907), bead finish, rectangular
- 1 unidentified stoneware rim sherd, jug, white glaze interior and exterior, utilitarian, mouth diameter 3 cm

**MD 23, Ap*****Architecture***

- 1 wire nail(s) (1890s-present) fragment

***Unidentified***

- 1 unidentified ferrous metal fragment, bent, corroded

**MD 24, Ap*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 25, Ap*****Activities***

- 1 horseshoe

**MD 26, Ap*****Architecture***

- 1 unidentified nail(s) fragment



**MD 27, Ap****Unidentified**

- 1 unidentified ferrous metal, strap, 79x1.5x0.3 cm, with holes for fasteners

**MD 28, Ap****Activities**

- 1 horseshoe

**MD 29, Ap****Architecture**

- 1 unidentified nail(s) fragment

**Unidentified**

- 1 unidentified ferrous metal fragment, cylindrical, length: 4 cm
- 1 unidentified ferrous metal fragment, thin

**MD 30, Ap****Unidentified**

- 1 unidentified ferrous metal, wire fragment length: 38 cm

**MD 31, Ap****Architecture**

- 1 wire nail(s) (1890s-present)
- 1 wire nail(s) (1890s-present) fragment

**MD 32, Ap****Architecture**

- 3 wire nail(s) (1890s-present)

**MD 33, Ap****Architecture**

- 1 wire nail(s) (1890s-present)

**MD 34, Ap****Unidentified**

- 1 unidentified ferrous metal fragment, 13x2x1 cm

**MD 35, Ap****Unidentified**

- 1 unidentified ferrous metal fragment

**MD 36, Ap****Architecture**

- 1 unidentified nail(s) fragment

**MD 38, Ap****Architecture**

- 3 wire nail(s) (1890s-present)
- 1 wire nail(s) (1890s-present) fragment

**MD 39, Ap****Architecture**

- 1 strap hinge fragment, 11x3 cm, hole 3 cm from end

**MD 40, Ap****Unidentified**

- 1 unidentified ferrous metal fragment, 22x5 cm, stepped edge and raised ridge along length





**MD 41, Ap*****Architecture***

- 1 wire nail(s) (1890s-present) fragment

**MD 42, Ap*****Unidentified***

- 1 unidentified ferrous metal fragment

**MD 43, Ap*****Activities***

- 1 bolt fragment, remnant of attached nut

***Unidentified***

- 1 unidentified ferrous metal fragment, thickness: 0.4 cm, raised ridge along one edge

**MD 44, Ap*****Architecture***

- 1 unidentified nail(s) fragment

**MD 45, Ap*****Architecture***

- 1 wire nail(s) (1890s-present) fragment

**MD 46, Ap*****Unidentified***

- 1 unidentified ferrous metal fragment, 1.4x3.5 cm, rounded on one end; possible kitchen utensil handle

**MD 47, Ap*****Activities***

- 1 horseshoe fragment

**MD 48, Ap*****Unidentified***

- 1 unidentified ferrous metal fragment, curved, length: 20 cm, thickness: 1-2 cm

**MD 49, Ap*****Unidentified***

- 1 unidentified ferrous metal fragment, concave, thickness: 0.5 cm; embossed "S" on surface

**MD 50, Ap*****Activities***

- 1 chain link

**MD 51, Ap*****Unidentified***

- 1 unidentified ferrous metal fragment, flat with raised edges, 9.5x7x0.4 cm

**MD 52, Ap*****Unidentified***

- 1 unidentified ferrous metal fragment, square 6 x 6 x 0.4 cm , raised rim (.06 cm) along one edge

**MD 53, Ap*****Clothing***

- 1 scissors, handle fragment

**MD 54, Ap*****Unidentified***

- 1 unidentified ferrous metal fragment, L-shaped, length: 11cm, thickness: 1-2 cm



**MD 55, Ap****Activities**

- 1 horseshoe fragment

**MD 56, Ap****Unidentified**

- 1 unidentified ferrous metal fragment, 8 cm

**MD 57, Ap****Unidentified**

- 1 unidentified ferrous metal fragment

**MD 58, Ap****Architecture**

- 1 wire nail(s) (1890s-present)

**MD 59, Ap****Unidentified**

- 2 unidentified ferrous metal, strap fragments

**MD 60, Ap****Unidentified**

- 1 unidentified ferrous metal fragment, 4.4x1.7x1.2 cm, slightly tapered along length

**MD 61, Ap****Architecture**

- 1 unidentified brick fragment, discarded in field (93g)

**Kitchen**

- 2 clear bottle/jar, ABM (post 1907)

**MD 62, Ap****Activities**

- 1 cultivator shank, 16.5x4.5 cm, single hole in center

**MD 63, Ap****Architecture**

- 1 wire nail(s) (1890s-present)

**MD 64, Ap****Unidentified**

- 1 unidentified ferrous metal fragment, width: 2.5 cm, evenly spaced, slotted holes

**MD 65, Ap****Architecture**

- 1 wire nail(s) (1890s-present)

**MD 66, Ap****Architecture**

- 1 wire nail(s) (1890s-present)

**MD 67, Ap****Architecture**

- 1 wire nail(s) (1890s-present)

**MD 68, Ap****Activities**

- 1 plowshare fragment



**MD 69, Ap*****Unidentified***

- 1 unidentified ferrous metal fragment, curved, 4.5x1.5x1.5 cm

**MD 70, Ap*****Architecture***

- 1 lime soda (post 1864) windowpane glass fragment
- 1 wire nail(s) (1890s-present)

***Kitchen***

- 1 container glass bottle/jar base fragment

**MD 71, Ap*****Architecture***

- 1 door latch, one side of bolt latch receiver with 3 slotted head screws attached

**MD 72, Ap*****Architecture***

- 1 lime soda (post 1864) windowpane glass fragment
- 1 wire nail(s) (1890s-present)

**MD 73, Ap*****Unidentified***

- 1 unidentified ferrous metal fragment, 17x4.5 cm, curved along width

**MD 74, Ap*****Activities***

- 1 cultivator shank, 16.5x4.5 cm, single hole in center

**MD 75, Ap*****Activities***

- 1 flatiron, missing handle

**MD 76, Ap*****Architecture***

- 1 wrought nail(s) fragment

**MD 77, Ap*****Architecture***

- 1 wire nail(s) (1890s-present) fragment

**MD 78, Ap*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 79, Ap*****Activities***

- 1 axe head

**MD 80, Ap*****Architecture***

- 1 spikes, length: 25 cm, 2 cm, square shank

**MD 81, Ap*****Unidentified***

- 1 unidentified ferrous metal fragment, flat, with curved notch on one edge





**MD 82, Ap*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 83, Ap*****Unidentified***

- 1 unidentified ferrous metal fragment, heavily corroded, triangular, length: 17.5 cm

**MD 84, Ap*****Unidentified***

- 1 unidentified ferrous metal fragment, triangular, 0.7 cm thick

**MD 85, Ap*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 86, Ap*****Architecture***

- 2 wire nail(s) (1890s-present)

**MD 87, Ap*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 88, Ap*****Unidentified***

- 1 unidentified ferrous metal fragment, flat, 0.4 cm thick, raised ridge along one edge

**MD 89, Ap*****Architecture***

- 1 spikes, length: 14 cm, 1.3 cm square shank

**MD 90, Ap*****Architecture***

- 1 cut nail(s) (1790-present)

**MD 91, Ap*****Architecture***

- 1 wire nail(s) (1890s-present) fragment

**MD 92, Ap*****Unidentified***

- 1 unidentified ferrous metal, ring, diameter: 4 cm

**MD 93, Ap*****Unidentified***

- 1 unidentified ferrous metal fragment, folded, slightly rounded

**MD 94, Ap*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 95, Ap*****Architecture***

- 1 wire nail(s) (1890s-present)

***Unidentified***

- 1 unidentified ferrous metal, wire fragment



**MD 96, Ap*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 97, Ap*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 98, Ap*****Personal Items***

- 1 boot spur rowel

**MD 99, Ap*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 100, Ap*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 101, Ap*****Architecture***

- 1 cut nail(s) (1790-present)

**MD 102, Ap*****Architecture***

- 1 lime soda (post 1864) windowpane glass fragment
- 1 unidentified nail(s) fragment

**MD 103, Ap*****Architecture***

- 1 unidentified nail(s) fragment

**MD 104, Ap*****Architecture***

- 1 strap hinge fragment

**MD 105, Ap*****Unidentified***

- 4 unidentified ferrous metal fragments

**MD 106, Ap*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 107, Ap*****Architecture***

- 1 wire nail(s) (1890s-present)

**MD 108, Ap*****Architecture***

- 3 wire nail(s) (1890s-present)

**MD 109, Ap*****Architecture***

- 1 wire nail(s) (1890s-present)

***Unidentified***

- 1 unidentified ferrous metal, hoop, diameter: 14 cm, width: 2 cm, thickness: 0.4 cm



### **MD 110, Ap**

#### ***Architecture***

- 2 wire nail(s) (1890s-present)
- 1 wire nail(s) (1890s-present) fragment

#### ***Unidentified***

- 1 unidentified ferrous metal fragment, square, 9x7.5x0.4 cm

### **MD 111, Ap**

#### ***Architecture***

- 1 wire nail(s) (1890s-present)

### **MD 112, Ap**

#### ***Architecture***

- 1 wire nail(s) (1890s-present) fragment

### **MD 113, Ap**

#### ***Activities***

- 1 horseshoe, modified, tapered to a point on the ends
- 1 pliers, missing half

#### ***Architecture***

- 1 lime soda (post 1864) windowpane glass

#### ***Unidentified***

- 1 unidentified ferrous metal, "D" ring, diameter 3 cm
- 1 unidentified ferrous metal, hoop, diameter: 22 cm, width: 3 cm; possible wagon wheel hub hardware

### **MD 114, Ap**

#### ***Unidentified***

- 1 unidentified ferrous metal fragment, L-shaped, 19x3x0.5 cm

### **MD 115, Ap**

#### ***Unidentified***

- 1 unidentified ferrous metal, wheel, 6 spokes with square hub, missing 1 spoke and portion of rim, bent spike through the center of the hub, 35 cm in diameter, rim and spokes approximately 2 cm

### **MD 116, Ap**

#### ***Architecture***

- 1 strap hinge fragment

### **MD 117, Ap**

#### ***Activities***

- 1 wingnut

#### ***Architecture***

- 2 wire nail(s) (1890s-present)

### **MD 118, Ap**

#### ***Architecture***

- 1 pintle hinge

### **MD 119, Ap**

#### ***Architecture***

- 1 wire nail(s) (1890s-present) fragment





## **MD 120, Ap**

### ***Architecture***

- 1 strap hinge fragment
- 1 wire nail(s) (1890s-present)

### ***Unidentified***

- 1 unidentified non-ferrous metal, tag plate fragment, embossed "HASSLER" within oval logo. Additional lettering "SHOCK ABSORBER, MANUFACTURED, ROBERT H. HASSL", "INDIANAPOLIS"; from shock absorbers for Model T Fords.

## **MD 121, Ap**

### ***Architecture***

- 1 wire nail(s) (1890s-present)

## **MD 122, Ap**

### ***Architecture***

- 1 wire nail(s) (1890s-present)
- 1 wire nail(s) (1890s-present) fragment

## **MD 123, Ap**

### ***Activities***

- 1 horseshoe

## **MD 124, Ap**

### ***Architecture***

- 1 wire nail(s) (1890s-present)

## **MD 125, Ap**

### ***Architecture***

- 1 wire nail(s) (1890s-present)

## **MD 127, Ap**

### ***Activities***

- 1 stirrup fragment

### ***Unidentified***

- 1 unidentified ferrous metal fragment, 14.5x2x0.2 cm. Oval shaped hole at one end with short bolt and nut attached. Two additional bolts fastening a second 5 cm long fragment of equal width and thickness atop first.

## **MD 128, Ap**

### ***Architecture***

- 1 wire nail(s) (1890s-present)

### ***Kitchen***

- 2 unidentified refined earthenware base sherds, holloware vessel, blue glaze along base

## **MD 130, Ap**

### ***Unidentified***

- 1 unidentified ferrous metal, bent bar diameter: 16 mm
- 1 unidentified ferrous metal, plate fragment with flared edge

## **MD 131, Ap**

### ***Architecture***

- 1 strap hinge fragment
- 1 wire nail(s) (1890s-present)



**MD 132, Ap****Unidentified**

- 1 unidentified ferrous metal fragment, flat, square, 5.5x5.5x0.4 cm, 4 cm opening at one end.

**MD 133, Ap****Architecture**

- 1 wire nail(s) (1890s-present)

**MD 134, Ap****Unidentified**

- 1 unidentified ferrous metal, hook with squared end and hole for fastener

**MD 135, Ap****Unidentified**

- 1 unidentified ferrous metal, hoop diameter: 14 cm, width: 7cm, with rounded notch; possible wagon wheel hub hardware

**MD 136, Ap****Architecture**

- 1 wire nail(s) (1890s-present)

**MD 137, Ap****Unidentified**

- 1 unidentified ferrous metal, pipe fragment

**MD 138, Ap****Activities**

- 1 axe head

**MD 139, Ap****Architecture**

- 1 wire nail(s) (1890s-present)

**STP 358, Ap****Kitchen**

- 1 clear, manganese (1880-1914) bottle/jar fragment

**STP 370, Fill 1****Architecture**

- 1 lime soda (post 1864) windowpane glass fragment

**Kitchen**

- 1 whiteware (post 1820) body sherd, unidentified form, polychrome

**STP 600, Fill 1****Architecture**

- 2 wire nail(s) (1890s-present)
- 1 wire nail(s) (1890s-present) fragment

**Kitchen**

- 1 unidentified refined earthenware body sherd, unidentified form, undecorated

**Unidentified**

- 1 unidentified ferrous metal, strap fragment 20 cm x 2 cm x 0.5 cm, attached iron bolt and nut
- 1 unidentified ferrous metal, straps with attached bolts and iron rings

**STP 370N, Fill 1****Architecture**

- 1 wire nail(s) (1890s-present)



***Kitchen***

- 1 aqua bottle/jar fragment

**STP 370W, Fill 1*****Kitchen***

- 1 Ball Blue (1909-1939) canning jar fragment

**STP 600N, Fill 1*****Architecture***

- 1 unidentified nail(s)

***Furniture***

- 2 steamer trunk corner guard fragments

***Unidentified***

- 1 unidentified ferrous metal, ring, 4.5 cm diameter

**STP 600S, Fill 1*****Architecture***

- 1 wire nail(s) (1890s-present)

***Arms***

- 1 brass/paper shotgun shell fragment, remnants of paper within base; imprinted lettering "FEDERAL MONARK No 12"

***Kitchen***

- 2 unidentified refined earthenware body sherds, unidentified form, undecorated
- 1 unidentified refined earthenware rim sherd, unidentified form, undecorated

***Unidentified***

- 1 unidentified ferrous metal fragment

**STP 600W, Fill 1*****Architecture***

- 1 lime soda (post 1864) windowpane glass fragment

**44CM0145****FEA 4, Fill 1*****Architecture***

- 1 unidentified nail(s)

***Kitchen***

- 1 American Stoneware base sherd, holloware vessel, salt-glazed buff (exterior), iron oxide wash (interior)
- 2 olive green wine bottle base/body fragments
- 16 pearlware (1775-1830) rim/body/base sherds, plate, shell edge, green, impressed makers mark, impressed anchor makers mark, possible Davenport (ca. 1793-1810)
- 2 unidentified refined earthenware sherds, unidentified form

**MD 1, Ap*****Architecture***

- 1 cut nail(s) (1790-present), possible horseshoe nail

***Clothing***

- 1 glass button(s), crenulated pattern around outer rim



**MD 2, Ap*****Architecture***

- 1 cut nail(s) (1790-present), possible horseshoe nail

**MD 3, Ap*****Architecture***

- 1 cut nail(s) (1790-present) fragment, bent

**MD 4, Ap*****Architecture***

- 1 cut nail(s) (1790-present), possible horseshoe nail

**MD 5, Ap*****Architecture***

- 1 cut nail(s) (1790-present), possible horseshoe nail

**MD 6, Ap*****Architecture***

- 1 cut nail(s) (1790-present) fragment

**MD 7, Ap*****Activities***

- 1 horseshoe

**MD 8, Ap*****Unidentified***

- 1 unidentified ferrous metal, plate fragment

**MD 9, Ap*****Architecture***

- 1 cut nail(s) (1790-present) fragment

**MD 10, Ap*****Architecture***

- 1 cut nail(s) (1790-present), possible horseshoe nail

**MD 11, Ap*****Architecture***

- 1 cut nail(s) (1790-present), possible horseshoe nail

**MD 12, Ap*****Unidentified***

- 1 unidentified ferrous metal, plate fragment

**MD 13, Ap*****Architecture***

- 1 spikes, wrought

**MD 14, Ap*****Unidentified***

- 1 unidentified ferrous metal, bar fragment

**MD 15, Ap*****Architecture***

- 1 cut nail(s) (1790-present) fragment



## **SC 1, Ap**

### ***Kitchen***

- 1 pearlware (1775-1830) body sherd, holloware vessel
- 2 unidentified refined earthenware body sherds, unidentified form

## **Loc 01**

### **STP 81, Ap**

#### ***Activities***

- 1 chain, approximately 1.4 meters in length

## **Loc 02**

### **STP 232, Ap**

#### ***Activities***

- 1 quartz biface thinning flake

## **Loc 03**

### **STP 314, Ap**

#### ***Activities***

- 1 quartz biface thinning flake
- 1 quartzite hammerstone

## **Loc 04**

### **STP 402, Ap**

#### ***Arms***

- 1 Stanly (Middle Archaic) projectile point fragment

## **Loc 05**

### **STP 560, Ap**

#### ***Activities***

- 1 quartzite scraper

## **Loc 06**

### **STP T4-18, Ap**

#### ***Architecture***

- 1 lime soda (post 1864) windowpane glass fragment

## **Loc 07**

### **STP 357, Ap**

#### ***Kitchen***

- 1 whiteware (post 1820) body sherd, unidentified form, undecorated

## **Loc 08**

### **STP 371, Ap**

#### ***Architecture***

- 1 unidentified nail(s) fragment



## **Loc 09**

### **STP 127, Ap**

#### ***Arms***

- 1     Clarksville (Late Woodland) projectile point

## **Loc 10**

### **STP 130, Ap**

#### ***Kitchen***

- 1     whiteware (post 1820) body sherd, unidentified form, undecorated

## **Loc 11**

### **STP 208, Ap**

#### ***Kitchen***

- 1     unidentified refined earthenware sherd, unidentified form, undecorated, spalled

## **Loc 12**

### **STP 21, Ap**

#### ***Arms***

- 1     Rossville (Middle Woodland) projectile point

## **Loc 13**

### **STP 167, Ap**

#### ***Architecture***

- 1     unidentified nail(s) fragment

## **Loc 14**

### **STP 97, Ap**

#### ***Kitchen***

- 1     clear bottle/jar body fragment

## **Loc 15**

### **STP 23, Ap**

#### ***Architecture***

- 1     wire nail(s) (1890s-present), bent

## **Loc 16**

### **STP 49, Ap**

#### ***Architecture***

- 1     unidentified brick fragment (8g)

## **Loc 17**

### **STP 201, Ap**

#### ***Activities***

- 1     quartz flake fragment





## **Loc 18**

### **STP 215, Ap**

#### ***Activities***

- 1 quartz biface thinning flake

## **Loc 19**

### **SC 2, Ap**

#### ***Arms***

- 1 Brewerton (Late Archaic) projectile point

